

Meeting Abstracts

8th Brazilian Melanoma Conference

A Retrospective Analysis Comparing Safety and Reliability of Methylene Blue and Lymphazurin in Sentinel Lymph node Biopsies for Skin Cancers

Rogério I. Neves, MD, PhD;¹ Brandon Reynolds, MD;
Jennifer Miller, BS; Brian Saunders, MD; S. William
Hazard, MD;¹ Donald R. Mackay, MD;¹

1-Division of Plastic Surgery, Penn State Hershey Medical
Center, Hershey, PA, USA

2-Department of Pathology, Penn State Hershey Medical Center,
Hershey, PA, USA

Background: Sentinel lymph node biopsy (SLNB) has become the standard for staging of melanoma and other skin cancers. Original studies describing SLNB used lymphazurin (LZ). A recent national shortage of LZ in US resulted in using methylene blue (MB) as an alternate stain for SLNB. Often, the studies favoring its use were based on breast cancer populations. Breast cancer SLNB typically uses a larger volume of dye and peri-tumoral injections rather than intradermal injections. The availability of LZ is now increasing, providing an optimal time to retrospectively reassess if MB is truly a safer and reliable alternative to LZ in skin cancer patients. **Objective:** This study compares the complication rates associated with LZ and MB in SLNB patients and the reliability of the dyes in locating sentinel lymph nodes. **Methods:** A retrospective review was done of all patients

who underwent SLNB for skin cancers between 9/06–12/08 at Penn State Hershey Medical Center. Data analyzed included the type and quantity of dye, nodes identified by blue staining, and any complications within 90 days of surgery. **Results:** There was nearly equivalent number of patients who received LZ as MB during this time period (46 vs. 47). The average amount of dye used was also similar between the LZ and MB (0.93 vs. 1.24). As noted in previous publications the identification rates by blue staining of the nodes were comparable (69% LZ vs. 62.8% MB). Notably, there was a much higher complication rate with MB (25.5% [12/47] vs. 8.7% [4/46]). The types of complications with LZ involved infections and minor skin slough but there weren't any skin graft complications in any of the 15 patients treated with a graft (9 split thickness skin grafts, 6 full thickness skin grafts). While, the skin complications following use of MB were more variable, including: tattooing, infections, dehiscence, and partial or complete loss of skin grafts. 50% (6/12) of patients treated with skin grafts in the MB group had partial or complete loss of skin grafts. (6 split thickness skin grafts, 6 full thickness skin grafts). **Conclusions:** There are increased numbers of skin complications with MB for SLNB, especially when skin grafts are used to cover the subsequent defect site, while the nodal identification rate is similar between MB and LZ. Our study had no allergic reactions to LZ with volumes <2 mL, which is consistent with the MSLT-1 trial. This data suggests that LZ should remain the standard of care for SLNB in skin cancer patients until further studies better delineate the complications associated with the appropriate use of LZ versus MB in skin cancer patients.

Anal Melanoma – 4 Case Reports

Alberto Wainstein; Rosana Siqueira; Karine Lima;
Raquel Cabral; Carlyle Barral
Bio cancer-ONCAD – Belo Horizonte

Anal malignant melanoma is a rare tumor with bad prognosis due to late diagnosis and early metastasis. Confused with hemorrhoids and rectal polyps, many patients progress to advanced stages of disease. The treatment remains controversial. We report 4 cases of anal melanoma and discuss the importance of early diagnosis and application of sentinel lymph node biopsy. Case 1: Male, 54 years, nodule in the perianal region, treated as a hemorrhoid. Progress with bleeding and ulceration. Performed local resection reported as a malignant invasive anal melanoma with IHC positive for S100 protein and negative for the antibody HMB45. A resection of the sentinel lymph node was performed with the result of metastasis of malignant melanoma followed by left inguinal lymphadenectomy. Patient just returned 2 years later, at terminal stage, complaining painful nodules in the perianal region and 3 nodules on the scalp. Melanoma developed from stage III to IV patients leading to death. Case 2: Male, 81 years, diagnosed with advanced anal melanoma undergone abdominoperineal amputation. Chemotherapy and radiotherapy was performed for 15 days, with complete regression of lymphadenomegaly. The patient died at palliative care. Case 3: Female, 47 years, has perianal nodule for 2 years with bleeding. Removed with enlargement margin. Submitted to left radical lymph node dissection to treat inguinal node. She received 6 doses of polypeptide vaccine. 6 Months later a Doppler revealing a node below inguinal scar was benign. Follow up with Doppler US with no sign of disease. Case 4: Female, 40 years, has pigmented perianal nodule. Diagnosis of malignant melanoma Breslow 1.8 mm. Sentinel lymph node biopsy was uptake in the left inguinal region. All 4 sentinel nodes were negative for metastatic melanoma. Patient in follow up free of tumor. **Conclusion:** Early diagnosis associated with the sentinel lymph node biopsy may improve the staging and therapy.

Analysis of 1041 Melanoma Cases from Cancer Register of Amaral Carvalho Hospital from January 2000 to August 2008

Ana Gabriela Sálvio; Ary Assumpção Júnior; Jose Getúlio Segalla; Donaldo B. Veneziano
Departamento de Pele do Hospital Amaral Carvalho de Jaú

Background: Melanoma incidence has increased worldwide. According to INCA (Instituto Nacional do Câncer) reports, in Brazil, were estimated for 2008, 5920 new diagnoses of melanoma. It is important to study the Brazilian population melanomas, to analyze the real impact of prevention programs. **Methodos:** A total of 1041 melanoma cases were treated at Amaral Carvalho hospital between January 2000 and August 2008. The cases were classified according to clinical stage, gender, age, localization of primary tumor, treatment and situation after first treatment. **Results:** About 14% of melanoma new cases were stage 0, 26.3% stage I, 21.7% stage II, 23.9% stage III, 9.8% stage IV and 1.8% could not be evaluated. There were no difference between sex. The age of diagnosis ranged from 40 to 70 years, observing that women were diagnosed with melanoma at an earlier age than men. Melanoma occurred mainly on the trunk in men (39%) followed by head and neck (27.4%). In female 27.2% occurred in lower extremities and 23.6% in upper limbs. For 78% of patients the initial treatment was surgery and in 80% the situation after treatment was no disease. **Conclusions:** These data represents 11% of cases of FOSP (Fundação Oncocentro). The distribution of new cases of melanoma of Amaral Carvalho hospital according to clinical stage resemble to the distribution of the registers of São Paulo state (FOSP). Early stages (0 e I) represented more than 40% of new cases. It may represents the attention of the population for early diagnosis on melanoma. The age of detection is high in both genders. It may result from the elevation of Brazilian population age. The location of melanoma predominantly on the trunk in men and lower extremity in women is according to the literature and is attributed to behavioral and cultural exposure and dress habits. Melanoma treatment is surgical, most of the times, represented in this study for 80% of disease free patients after first treatment.

Anorectal Melanoma: Two Case Reports and a Literature Review

Eduardo Miranda Brandão; Joaquim Carvalho; Marcel Pinto; Paulo Brandão; Vanessa da Silva.

Clínica UNIONCO; Faculdade de Ciências Médicas – UPE; Escola Pernambucana de Medicina – FBV/IMIP, Recife

Anorectal melanoma is a tumor with a poor prognosis and average survival of 12 months. It is a rare condition, corresponding to 0.4 to 1.6% of all melanomas. Case 1: AAP, male, 80 years. Patient diagnosed with anorectal melanoma after biopsy for clarification of nodular lesion and local pain. Staging exams revealed no abnormalities. Unsuccessful attempt at lymphatic mapping due to likely individual limitation in lymphatic drainage. Local resection of the tumor performed with preservation of the sphincter. Histopathological analysis: ulcerated nodular lesion reaching the muscle layer; hazel-grayish coloration; free edges. Immunohistochemical analysis: malignant melanoma (positive S-100 and MELAN-A). In the 20th month post-operation, patient complained of pain and rectal bleeding; case under investigation. Case 2: AMVM, female, 53 years. Complaint of bleeding and rectal tumor for one month. Nodular lesion upon exam. Diagnosed melanoma through biopsy. Staging exams with no abnormalities. Local resection and lymphatic mapping. Rectal and adjuvant pelvic radiography. Histopathological analysis: Malignant, ulcerated, nodular melanoma, with affected submucosa; free edges. Inguinal sentinel lymph nodes negative for micro metastases. Patient exhibited intestinal occlusion during radiotherapy and was submitted to laparotomy, which revealed actinic ileitis with stenosis. After 24 months of follow up, patient is asymptomatic, with normal physical exam. Discussion: The main presentation of melanoma of the anal canal is nodular (58%). Ulceration may occur in as many as 41% of cases. Patients may exhibit either the melanocytic or amelanic form (associated to a worse prognosis). Its clinical presentation is confounded with benign anorectal disease, expressed by anal bleeding (91%), anal pain (36%) and anal tumor (36%). The treatment of choice is controversial, but broad local resection appears to offer mean survival rates similar to abdominoperineal resection. The role of adjuvant therapy with radiotherapy, chemotherapy or immunotherapy has not yet been established, but radiotherapy appears to diminish the possibility of local recurrence. **Conclusion:** Anorectal melanoma continues to be a condition with a poor prognosis, high rates of systemic dissemination and low survival rates. The

diagnostic confusion with benign diseases postpones the correct diagnosis. Considering current treatment options, a high clinical suspicion and early diagnosis are the main factors related to a better prognosis.

Antiproliferative Potential Induction and the Free Radicals Production in the Melanoma Treatment

Fernanda Faião-Flores; Rafael Oliveira; Rose Bosch; José Suarez; Durvanei Maria

Instituto Butantan e Universidade de São Paulo (USP), São Paulo

Background: DM-1 Compound, sodium 4-[5-(4-hydroxy-3-methoxyphenyl)-3-oxo-penta-1,4-dienyl]-2-methoxy-phenolate, presents structural and biological similarity to Curcumin, extracted of *Curcuma longa*, can be gotten by synthetic route, starting from vanillin, a natural product existent in Brazilian propolis and in plants, it is also believed that their biological profiles are similar as potential antitumoral, antioxidant and anti-inflammatory. Although the Curcumina widely is studied, synthetic structural analogous are little explored. The aim of this work was to evaluate the antitumoral, antiproliferative and antioxidant effects of DM-1 synthetic phenolate in normal cells (Fibroblasts FN1 and L929) and Melanoma cells (B16F10, MeWo, MEL85 and SKMEL-28). **Materials and Methods:** The Melanoma cells (B16F10, MeWo, MEL85 and SKMEL-28) and Fibroblasts (L929 and FN1) had been cultivated in RPMI-1640 medium supplemented with 10% of fetal bovine serum. After the confluence, the cells they had been submitted trypsinization and cultivated in plates of 96 wells for 24 hours. After that, the cells had been dealt with different concentrations of DM-1 compound (360µM, 180µM, 90µM and 45µM). The cellular viability was determined by the MTT colorimetric method [3 - (4,5-dimetiltiazol-2-yl) 2,5-difenil tetrazolio bromide] for the calculation of the Inhibitory Concentration 50% (IC50%). The oxidative stress on lipids mainly of cellular membrane was evaluated by Ohkawa method (1979), for the determination of the amount of malondialdehyde (MDA). **Results:** the found values of IC50% in the melanoma cells (B16F10, MeWo, MEL85 and SKMEL) had been respectively 84, 301, 321 and 264nM. It did not have cytotoxic and inhibitory activity of the proliferative capacity in normal fibroblasts. DM-1 compound presented oxidant potential in the tumoral lines between the minimum value of 1.2

and maximum of 28.5nM of MDA produced in relation to the control group, whereas this potential in normal fibroblasts was not observed. **Discussion/Conclusion:** The DM-1 phenolate got antiproliferative and oxidant potential in low molar concentrations in all the melanoma cells, do not exerting inhibitory and cytotoxic effect in normal fibroblasts cultures. Prominent effect of the DM-1 compound in the antioxidant activity in the normal cell lines had been observed. Financial support: FAPESP.

Applying Histology from Normal Skin to Identify Melanoma from Uncertain Origin in Multiple Resections with Erroneous Placement and Identification

Alberto Wainstein; Guilherme Duarte; Graciele França; Rosana Siqueira; Carlyle Barral; Fernando Santos; Flávia Bittencourt; Marcelo Salomé.
BioCancer, ONCAD - Belo Horizonte

Biopsy is essential for the diagnosis of cancers such as melanoma. In order to achieve this objective, it is mandatory that the collection, storage and identification of samples are done properly. When this procedure is carried out negligently, the diagnostic capacity of histological examination is compromised. **Objective:** In this case study, we describe a methodology used to identify among 5 lesion resected and placed in the same vial, which is the topography of the lesion that had the diagnosis of melanoma with compromised margin. **Methodology:** A male patient, 43 years old, undergone 5 skin resection for pigmented disease, right temporal, nasal, left inguinal, left and right axillar placed and identified erroneously in the same vial. Histopathological analysis diagnosed one as melanoma with 0.4 mm of extension and Breslow 0,2 mm, Clark level I, radial grown phase, huge regression and compromised margins. The site where this lesion was resected was not identified among 5 surgical pieces. A new experienced pathological review was done in all samples looking for histological aspects of each lesion to predict from which body part the melanoma came from. Studying aspects of the hair follicle, histological layer, cutaneous glands, cells types, architectural histology and others the pathologist predicted that the melanoma come from the inguinal region. As this procedure is not a standard, we did the surgical resection enlargement of all 5 previous

resections. **Conclusion:** The assumption of the pathologist was right and the surgical species of the inguinal resection showed residual melanoma cells at the scar. Histological aspects from diverse body parts could be useful to identify sites of tumor with uncertain site which multiple lesions were resected and were mistakenly placed and identified. However we stress the importance of correct identification of samples for the histological diagnosis.

Backward-Auricular Melanoma in Regression, Pregnant Woman, Without Conscience of Her Lesion

Leonardo Kruschewsky ; Helenemary Schaer; H. Reis; L. Mascarenhas; E. Torres
Hospital Aristides Maltez, Salvador

Pregnancy is associated with increased incidence of illnesses as hemangioma and melanoma. The regression of melanoma is one of the singular aspects of this illness. History, Physical Examination and Complementary Examinations: SEM, 25 yo, white female, with history of cervical mass about 6 months ago, without pain or other symptoms. Physical exam: nodular lesion in cervical level 2 of about 3 cm, contiguous to the inferior wolf of the left parotid. External biopsy: unconcluded material. Cytology: undifferentiated carcinoma probably metastatic. Neck TC: intraparotid mass of about 3 cm, pre-surgical exams and thoracic Rx without abnormalities. **Treatment and Results:** Considered cervical mass excisional biopsy with intra-operative frozen section for treatment definition. Once patient under general anesthesia, evidenced backward-auricular lesion near scalp, reddish in its periphery and blackish center, suggesting regression. Decided frozen section of both, the skin lesion and the lymph node. Frozen section: intra-dermic nevus and necrotic epithelioid tumor. **Histology:** Undifferentiated malignant neoplasia in cervical lymph node and melanocytic junctional proliferation in skin. Immunohistochemistry: malignant metastatic amelanocytic melanoma on lymph node and probable melanoma lesion in regression on skin. So, patient was submitted to cervical lymphadenectomy including chains on levels 1 to 4, parotidectomy with facial nerve preservation and wide resection of backward-auricular scar with flap rotation. **Histology:** parotid and 23 lymph nodes without metastases and skin with free edges. Discovered pregnancy comes the term seven months later without

alterations, initiating radiotherapy after childbirth, 60 Gy. Following patient two years without illness. **Discussion:** Special attention to zones of the head and neck as backward-auricular region and scalp, admitting them as blind positions for the patients and physicians. Pregnancy evolve high incidence of some illnesses as melanoma. Regression of melanoma is associated with poor prognosis and displays immunologic component of its illness.

Breast Metastasis from Malignant Melanoma: a Case Report and Review of the Literature

Marcelo Hajime Kohayagawa;¹ Maria Nirvana Cruz Formiga;¹ Andréa Malta Ferrian;³ Renato Lima Rozenowicz;² Marcello Ferretti Fanelli.¹

1-Jundiaí Oncology Institute at the Hospital São Vicente de Paula,
3-Medical Internal Medicine at the Hospital São Vicente de Paula”

2-Surgery Oncology at the Hospital São Vicente de Paula, Jundiaí,

Metastases to breast are rare, but it must be considered in the differential diagnosis of breast mass. The most common breast metastases are from primary cancer of breast contra lateral breast. The other histologies include skin, lung, gynecological, gastrointestinal, head and neck, sarcoma and genitourinary cancers. Melanoma correspond to 1,3 to 2,3% of the metastasis to breast. The clinical presentation is palpable mass without skin involvement. The majority of mammograms don't show calcifications. The treatment must be individualized. Patients with metastasis limited to breast or minimal disease in other sites may have local excision as a possible therapeutical option. **Case Report:** a female 37 year-old patient presented with malignant melanoma in right leg, Breslow 3mm, Clark III, with ulceration, clinical stage T3bN0M0, in 2006, treated only with surgical resection. Two years later she developed inguinal lymphonodal recurrence, submitted to lymphadenectomy. She received chemotherapy with dacarbazine for three cycles, with disease progression to ovaries and annexes right after. She received 2 cycles of paclitaxel as monotherapy. After another progression, she was submitted to hysterectomy and anatomical analysis confirmed melanoma. One month after she presented two palpable nodes in right breast on physical exam and Mammogram conclusion was BIRADS 0. The incisional biopsy confirmed metastases of melanoma. In complementary imaging there were lymph

nodes in retroperitoneum. It was started chemotherapy with cisplatin, vinblastin and dacarbazine. Now, after three cycles of this regimen, she has stable disease in breast and retroperitoneum and brain lesions, waiting for cranial radiotherapy. **Discussion/Conclusion:** this interesting case of a rare site of melanoma metastases showed that a mass in breast, mainly in a patient with another primary tumor, such as melanoma, should be considered as differential diagnosis between primary breast carcinoma and metastases.

Clinical and Epidemiological Analysis of 140 Cases Treated in the Melanoma in a Specialized Institution

Márcio Studart da Fonseca; Bruno Teixeira; Josualdo Alves Junior; Carlos Bezerra

Hospital do Câncer- Instituto do Cancer do Ceará (ICC), Fortaleza

Melanoma represents around 3% of all skin tumors and is associated with significant mortality rate for cancer in young adults. Epidemiological studies are important to better understand the characteristics and behavior of the disease. The investigation of these aspects is fundamental, because only from epidemiological data we can plan and develop awareness campaigns for the population and education programs directed to health professionals. Setting up the highest risk populations, governmental guidelines may be focused on early detection with a consequent impact on the disease specific survival. The aim of this study is to establish the clinical and epidemiological profile of a population attending in a specialized service. **Material and Methods:** A retrospective study was performed from review of medical records of all cases of cutaneous melanoma admitted in the institution between January 2000 and December 2003. Distribution were analyzed by gender, age, education and location, correlating them with clinical and pathological factors. **Results:** From a total of 140 patients, 82 were female (58.6%). The mean age was 55 years for men and 58 for women. About 48.6% of the sample consisted of non-white patients. There was a predominance of head and neck melanoma (51 cases) and trunk melanoma (35 cases), totaling 61.4% of the sample. Over 60% were illiterate or had incomplete high

school. In 53 patients available for Breslow and level of education we can not demonstrate relationship between these two variables. Similarly in 56 available patients there was also no significant correlation between the degree of education and the level of Clark. **Conclusion:** There was predominance of female gender, fair skin and young adults. In this population, just under half of the patients were not white people, diverging from the literature. The low level of education does not seem to explain the late diagnosis of the disease in the population studied. This information, after ratification in larger studies, must show that population education campaigns must be directed even for high level education people group.

Collagen Type I Inhibit Growth and Dissemination in Mice Bearing of Murine Melanoma B16F10

V.Martins; D.Inada; F.A.Kleber; R. Silveira; D.Maria.
Lab.Biochemistry and Biophysical, Butantan Institute,

Collagen is the main protein of connective tissue in animals and the most abundant protein in mammals, making up about 25% to 35% of the whole-body protein content. This is the most abundant collagen of the human body. It is present in scar tissue, the end product when tissue heals by repair. It is found in tendons, skin, artery walls, the endomysium of myofibrils, fibrocartilage, and the organic part of bones and teeth. During tumor growth, is deposition of collagen, mainly of types I and III, which characterizes the reaction of the stroma. The collagen type I, can have a stimulatory or inhibitory effect on cell proliferation and organized fibrillar structure inhibits normal and malignant cell proliferation. **Objective:** Compare the effects of type I collagen on cell proliferation of murine B16F10 melanoma and models of implantation in mice C57BL/6J treated with collagen type 1 hydrolyzed. **Methods and Results:** We determined the inhibitory concentrations (IC50%) of collagen in the cell lines B16F10 and normal dermal fibroblasts. The cells were treated with different concentration of compounds and cell viability obtained by the colorimetric method – MTT. The inhibitory concentrations obtained were 18.6 mg / mL for B16F10 melanoma cells, no cytotoxic effects in normal dermal fibroblasts. After determined in vitro IC50% C57BL/6J mice were implanted with 5x10⁴ B16F10 melanoma cells by subcutaneous inoculation. The treatment was performed with the collagen type 1 in

different concentrations, administered by intraperitoneal route during 40 days. Animals bearing the B16F10 melanoma treated with collagen showed significant reduction of tumor mass and area, with compared control group. The survival rate calculated by the Kaplan-Meier test showed that treatment with the samples of collagen induced a significant reduction in mortality rate, and no significant side effects were observed, such as loss weight, immunosuppression, behavioral changes, but the significantly reduction in number of metastases. **Conclusion:** Collagen type 1 hydrolyzed significantly reduced tumor growth and inhibition of formation of metastases in experimental melanoma B16F10. New molecules or proteins, and peptides hydrolyzed bioactive selective endogenous possibly may be useful as co-adjuvant therapy in the treatment of neoplastic diseases. Financial Support: CNPq

Collision of Melanoma “in situ” and Seborrheic Keratosis: a Case Report

Francisco Paschoal; Carolina Pellegrini; Karine Sal-danha; Dirlene Roth; Gilles Landman
Department of Dermatology of Medicine School of ABC, Santo André

Melanoma in situ in association with seborrheic keratosis is still a rare phenomenon, although it is described in literature,. Both lesions are well characterized separately according to its histology and clinical appearance. This differential diagnosis could be more difficult in the presence of a large amount of keratosis and it can change the management of the case. Clinical History and Physical examination: Female, 77 years old, had related a “spot” in her left leg since childhood which had enlarged in the last eight years. At the dermatologic exam, we found a non symmetrical irregular verrucosus brownish patch with a central part more pigmented at her left leg. The initial hypotesis was lentigo maligna. **Complementaries Exams:** Dermoscopic examination demonstrates structures like atypical streaks in the superior part of the lesion. A pigment network and globules weren't present. The inferior area shows an abundant keratosis. Because the diagnosis of a melanocytic lesion was inconclusive, we procedure a biopsy, that reveals an epiderm with cells similars to those of the basal layer, with typical morphology. There were horny pseudocists

and hyperkeratosis. The cells of basal layer were substituted from melanocytes with large and hyperpigmented nuclei, which were grouped together. The final conclusion concerned on the diagnosis of a collision of melanoma “in situ” and seborrheic keratosis. **Treatment and Results:** Later, the lesion was completely removed and the histologic findings confirmed this hypothesis. **Conclusion:** The Dermoscopic examination is useful in the differential diagnosis of pigmented lesions. During the analysis of this case, we found characteristics of a non melanocytic lesion, although the final diagnosis was melanoma. Therefore, all pigmented lesions should be considered for biopsy and histological examination in spite of its benign appearance. **Justification:** Possibility of collision of melanoma and seborrheic keratosis.

Conjunctival Melanoma and Sentinel Lymph Node Biopsy—a Case Report

Marcio Studart da Fonseca; Marcus Gurgel; Marcos Fernandes; Maria Cunha; Igor Costa.

Cancer Hospital—Cancer Institute of Ceará, Fortaleza

Conjunctival Malignant melanoma (MM) is a rare tumor with unpredictable behavior characterized by high risk of local recurrence, systemic and lymphatic spread. Biopsy of sentinel lymph node (SLN) has been used for lymph node staging of solid tumors, especially MM. The indication for head and neck MM, especially in mucosa remains under discussion. **History and Physical Examination:** MFS, 72 years old, female, skin phototype II, farmer. History of punctiform pigmented lesion on lower Palpebral Conjunctiva for 12 years that increases in the last 2 years, becoming with darker pigmentation and involving throughout the lower Palpebral Conjunctiva. Prior surgical treatment for 2 Basal Cell Carcinomas on the face in 2000. General physical examination without findings. Locoregional examination showed a black lesion with asymmetrical and irregular edges affecting the entire left lower Palpebral Conjunctiva, from the lacrimal caruncle to the lateral palpebral commissure. There was Bulbar Conjunctiva extension to the region near Limbo. Parotid and neck without clinically significant lymph nodes. Clinical staging : T3N0M0. Investigations: preoperative testing and staging exams were normal. Incisional biopsy of the lesion showed invasive MM with 2 mm Breslow

thickness. **Treatment and Results:** Preoperative Lymphocintigraphy was conducted – Phytate labeled with Technetium. Intradermal infiltration of Patent blue at the Tarsal edge was done immediately before surgery. Superficial Parotidectomy with preservation of Facial nerve, excision of Submandibular lymph node, orbit exenteration and rotation of left Temporal muscle flap filling the orbit was done. It was confirmed the resection of hot lymph nodes with GamaProbe (2 intraparotid and 1 submandibular). Histopathology: MM of 3.0 x 1.1 x 1.1 cm of Conjunctiva and Eyelid Fórnix with focal invasion of Bulbar conjunctiva. There was no evidence of precursor or associated lesions. Breslow: 7mm. Identified three sentinel nodes free of cancer on HE and IH stains with Melan A and protein S-100. **Discussion / Conclusion:** This is a case of advanced conjunctival MM submitted to a radical resection and the SLN biopsy. The case requires a discussion about the treatment of primary tumor, the indication and methodology for the SLN biopsy, the needs for parotidectomy to a resection of the pre-auricular SLN and the extend of Neck dissection. Keywords: Melanoma, conjunctival, sentinel lymph node.

Continuous Program for Melanoma Prevention and Early Diagnosis Results

Ana Gabriela Sálvio; Ary Assumpção Júnior; Jose Getúlio M Segalla; Helen R Nicolini; Reniele Didone;

Departamento de Pele do Hospital Amaral Carvalho de Jaú

Background: Melanoma worldwide incidence increased at a more rapid rate than any other cancer. Although it represents only 4% of skin cancer, it is responsible for 60% of skin cancer deaths. Melanoma became a growing public health problem. The identification of lesions at early stage is the most important factor for a better survival. Unfortunately, the national data evidence that most of the cases of melanoma are diagnosed at late stage. **Methods:** The present study developed a continuous program for melanoma prevention for a city of 120.000 inhabitants in São Paulo state, allowing primary prevention and early diagnosis. The program for melanoma prevention was initiated in October 2007. The 13 unities of health of Jaú city received the nurses during 30 days through the year. This team was able to

explain the patients about fotoprotection, and detection of early signs of melanoma. When a suspicious lesion is observed, the patient is conducted to Amaral Carvalho Hospital for a dermatological and dermoscopic exam. When a melanoma is suspected, the excisional biopsy is done. **Results:** Six cases of early stage melanoma and 4 displasic nevi were diagnosed until march 2009 (3 stage 0 “in situ”, 2 stage IA e 1 stage II). **Conclusions:** This is a new and efficacious model for melanoma prevention and early diagnosis. The melanoma prevention program is able to identify suspicious lesions, leading to early diagnosis and a better survival.

Cutaneous Melanoma the Hospital do Câncer of Barretos Experience

Marcilio Vital; Vinícius Vazquez; Antonio Oliveira; Thiago Biosi; Marcelo Vieira

Fundação Pio XII – Hospital do Câncer de Barretos, Barretos

Purpose: to describe the experience of the Hospital de Câncer de Barretos (HCB) on attendance on cutaneous melanomas cases. **Material and Methods:** after review the dates of the patients dossier, whit SPSS15.0 programme, to make a statistic analyze of the 815 cases of melanoma attended in this hospital between 1997 e 2007. **Results:** from all the patients evaluated, 423 (51.9%) were women and 392 (48.1%) were men. More than 90% were Caucasian and 15% of all cases presented other associated lesions (CBC, CEC and melanoma). The trunk was the most prevalent site, with 34.7% of the cases, followed by inferior limbs (26.6%), head and neck (21.3%) and superior limbs (13.5%). Among all cases, 603 (74%) didn't receive any treatment. The superficial spreading melanoma was the predominant histological type, followed by nodular (27%). Those submitted to surgical treatment had surgical boundaries ranging from 1mm to 30mm, with 2.02 ± 0.92 media. The surgical treatment was associated with sentinel lymph node biopsy (SLNB) in 215 patients, in which the preoperative lymphatic mapping was the most used test. The pathological examination of the sentinel lymph nodes (SL) revealed the absence of cancer cell in 172 (21.1%) cases, the presence in 41 (5.0%) and microscopic metastasis in 11 (1.3%). 549 (67.4%) patients were submitted to SLNB and 42 (5.2%) did not have specific data. From those submitted to SLNB, 14 (1.7%) did not present SL, 124 (15.2%) had 1 marked and excised SL, 55 (6.7%) showed 2 SL, 17 (2.1%) 3 SL and 12 (1.5%) more than 3. Regarding lymph node

dissection, 149 presented positive lymph nodes, 81 were negative and 60 didn't show these dates. More than 10 lymph nodes were excised in about 65% of the analyzed cases. TNM grouping sorted 54% of cases in I and II stage groups, 19% in III stage group, 14% in IV stage group and 8% in 0 stage group. The global survival in 5 years, estimated by Kaplan–Meier test, was 63.9%, with 91.2% on 0 stage group, 86.7% in I, 87.7 in II, 49.5% in III and 21% in IV stage group, with $p < 0.001$. **Conclusion:** the statistical data in this report are of epidemiological importance and presents a survival rate in accordance to the world literature. Our results show the experience of an institution that serves patients all over the country.

Cutaneous Melanoma Incidence at Jau Population –Data from Population Based Cancer Register

Ana Gabriela Sálvio; Ary Assumpção Júnior; José Getúlio M Segalla; Donald B. Veneziano

Hospital Amaral Carvalho de Jaú.

Background: Cancer, as a multifactorial cause needs criterious studies for the acknowledgement of its origin. Statistical studies about epidemiology give informations of morbid and mortality. It is important for planning strategies for its control (prevention and early diagnoses), treatment efficiency, and study of risk factors. The Population Based Cancer Register (PBCR) collect information about cancer patients that live in a city or in a country during a period. The PBCR represents a source for establishment of prevention strategies. Comparison of data from distinct PBCR contributes for better information. The present study analyzed the melanoma patients of Jaú inhabitants during 2000 to 2004. **Methods:** All the cases of cutaneous melanoma were collected from PBCR–Jaú from a period of 2000 to 2004, It was performed a distribution according to gender, age at diagnosis, survival and age-adjusted melanoma incidence rates. **Results:** It was diagnosed 48 cutaneous melanoma patients among Jaú inhabitants during the period of 2000 to 2008. According to gender, 60% were female and 40% male. Age at diagnosis changed from 20 to 85 years. The age-adjusted melanoma incidence rates was 5.2 for men and 6.1 for woman. Five years survival for clinical stage 0 was 84.6%, 75% for stage I, 60% for stage II, 50% for stage III and 0 for stage IV. **Discussion/Conclusions:** The PBCR–Jaú is one of 22 population

based cancer register of the country. The survival analysis according to clinical stage was the same of others studies. For the Jaú population there is a significant prevalence in female. The age-adjusted melanoma incidence rates when compared with the others registers of Brazil is the third higher incidence on females and the fifth on males.

Cutaneous Melanoma: Relevant Anatomopathological Criteria

Felice Riccardi; Humberto Matos; Ângela João; Gustavo Laporte; Tadeu Ambros

Oncology Surgery Department – Melanoma Unit Hospital Santa Rita – Complexo Hospitalar Santa Casa de Porto Alegre

The treatment and prognosis of cutaneous melanoma patients depends on clinical and histological factors. Breslow's classification is the most important predicting factor. However, the contribution of other histopathological criteria that withholds a potential association with clinical outcomes, such as ulceration, regression and mitotic rate, is currently under investigation. **Objectives:** Evaluate the association between mitotic rate, ulceration and regression with Breslow classification. **Methods:** This is a retrospective descriptive study that enrolled 290 patients diagnosed with cutaneous melanoma who were treated by a single surgeon, in a reference center located in Porto Alegre – RS, between August 2000 to March 2009. Data was gathered from anatomopathological reports performed by one single experienced dermatopathologist. For data analysis, it was established a cut-off point of 4 mitoses per high power field. Regression and ulceration were considered present or absent upon microscopic examination. The Breslow's classification used were subdivided into in situ; ≤ 1 ; 1.01 – 2.0; 2.01 – 4 and > 4 mm. **Results:** Ulceration was found in 2.4% of patients with Breslow ≤ 1 mm and in 65.7% of patients with Breslow > 4 mm. There was no directly proportional association between Breslow thickness and regression, evidenced by 51.8% of positivity in lesions with invasion thickness ≤ 1 mm and in 28.5% of patients with invasion thickness between 2.01 and 4.00 mm. Moreover, mitotic rate showed a positive linear association with Breslow thickness. **Conclusion:** The present study emphasizes the need to explore other histological features associated with the invasive behavior of cutaneous melanoma, and therefore, provide more accurate diagnosis and appropriate treatment.

Cutaneous Metastasis in Choroidal Melanoma – a Case Report

Roberta Vasconcelos; Marcelo Arnone; Mirian Nacagami Sotto; José Antonio Sanches Junior.

Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo

Background: Choroidal primary melanoma is the most common ocular malignant tumor in adults. Ocular melanoma metastasis derived from the skin is very rare (0, 4%). It is less frequent the involvement of the skin by a melanoma of the choroids. **Objectives:** to report a case of cutaneous involvement by choroidal melanoma. **History and physical examination:** we report a case of a 57 years-old white female patient. Six months before the consultation she noticed multiples subcutaneous, bluish, firm, mobile nodules spread by all over the skin. She had been treated of a choroidal melanoma two years ago, by enucleation. Complementary exams: the histopathologic and immunochemical exam of the eye was consistent with solitary choroidal melanoma. Skin biopsy revealed atypical melanocytes, similar to those of the involved eye. **Discussion/Conclusion:** Choroidal melanoma is usually indolent, and may be disseminated hematologically. In the current case, the finding of a uniocular and solitary lesion suggests that the primary site is the eye. The majority of metastatic cutaneous melanomas are originated by the skin or by an unknown site. So far, there was only one case report of a cutaneous metastasis of choroidal melanoma.

Cutaneous Metastasis of Malignant Melanoma Simulating Intadermal Nevus

Beatriz Kakazu; Neusa Valente; Marli Calux; Fabio-Arakaki

Hospital do Servidor Público Estadual de São Paulo

In this study case we will report the importance of clinical information and illness foresaw for the final histopathologic diagnosis. The male patient has 83 years old and a biopsy was obtained from two tanned nodular skin lesion of his right thigh, which is near a previous

excisional surgical scar of a malign melanoma made a year ago. The microscopic examination demonstrated a melanocytic lesion that exhibited cellular maturation and after a detailed inspection was concluded to refer to a metastasis of melanoma simulating intradermal nevus. The second lesion exhibited some lymphatic invasion off malign melanoma cells.

Cutaneous Melanoma in a Region of Southern Brazil

Marcelo Moreno; Maria Gabriela Lang; Vanessa Gheno
Universidade Comunitária Regional de Chapecó - Chapecó
Group of research in clinical epidemiology-Medicine School

Cutaneous melanoma (CM) is considered a neoplasm with lower prevalence when compared with other neoplasms like breast and prostate cancer. However, it has a high mortality rate and its incidence has been increasing in the last few years among Caucasian population. In the state of Santa Catarina, the population is basically compound by European descendents. Also this region is near the Tropic of Capricorn and Parallel 30°, having similar latitudes of Australia where the incidence of CM is the highest of the world. These factors can result in a high number of cases of CM in this region. **Methods:** During seven years, 277 patients with CM were assisted at the Department of Oncology in Chapecó city - Santa Catarina /Brazil. This service attend the west region of state that include 118 cities. The variables analyzed were the same of protocol Brazilian Group for study of Melanoma. Statistical analysis was done using Epi Info™3.5.1. **Results:** all patients were white and the majority had or still has a high sun exposure in their occupation. Considering the patients' home cities, there was in average 33.5 cases per 100.000 inhabitants during the period considered. The mean of age was 48,7 years old (SD=18), the majority were woman (60.3%) and had blonde and red hair (65.2%). The place more common of primary lesion was in the right arm, considering the feminine sex. Men had more CM in right scapular region. Superficial spreading melanoma represented the most common form (56.3%), followed by nodular (23.4%), lentigo maligna (4.4%) and acral lentiginous melanoma (3.8%). The stages I and II predominated at diagnostic moment (65.5%). Of the 277 patients, it was possible to analyze the survival rate only in 160, due to lack of follow-up. In period of seven years of follow-up, the global survival rate was 76.2%. **Discussion/Conclusion-**The

west region of Santa Catarina state is a local hold high number of CM's cases. The geographic localization of region and the characteristics of the population as "skin type", color of hair and eyes were important to explain this finding. The clinical and anatomopathological characteristics are similar to classical series. The mortality rate was 2.3, with survival rate lower than the average of sites with similar population. Despite of majority of patients has had the disease in the stages I and II, at diagnosis, the lesions demonstrated poor prognostic factors.

Dermato-Mucous Melanoma of Medial Line of Superior Lip and Sentinel Lymph Node

Leonardo Kruschewsky; M.Brandão; P.Zanvetor; C Ribeiro; I. Araujo
Hospital Aristides Maltez, Salvador,

Lip melanoma may involve skin, mucosa and both. Once in medial line, evaluate neck bilateral. Superior lip neoplasia is more aggressive and metastatic, even so rare. **History, Physical and Complementary Exams:** CNO, 27, black female, blackish lesion in labial filter 7 years ago, biopsy: nevus, growth 2 years ago, re-biopsy: melanoma Clark V, Breslow 1,1mm, mucous and muscular vermilion component. Physical examination: plain melanocytic lesion, in all superior labial filter, following for vermilion and labial mucosa, in horseshoe, 4.5 cm of length for 2.0 cm of width. Neck and remaining physical exam ok. Routine pre-operative and thoracic Rx without alterations. **Treatment and Results:** Proposed complete labial filter resection, with safety margins, radio guided sentinel lymph node by scintillography and blue patent, labial reconstruction with ABBE flap by medial line of inferior lip rotating to superior lip and explanation of possible cervical lymphadenectomy after histology. Clarification of patient aesthetic fear. Scintillography 24 h before surgery: marker capitation in 1 intra-parotid lymph node and in another 1, level 1 of the right neck, and in 1 lymph node, level 1 and in another 1, level 2, of the left neck. Injected 1 ml of blue patent in the labial filter, proposal surgery was done removing at least one lymph node in each one of the 4 marked points. Labial reconstruction. **Histology:** desmoplastic melanoma, predominant in situ, Clark V and Breslow 2 mm, one mitose for field of 40x, free edges, and innocent lymph nodes. Immunohistochemistry: Melanoma isolated cells

in right cervical lymph node, level 1, TNM pN0. Flap autonomization and right selective supraomoido lymphadenectomy. Histology: 11 lymph nodes without illness. Radiotherapy: 50 Gy in topography of superior lip, for edge 0.5 cm in one region in situ, followed along 4 years without illness. **Discussion and Justification:** To stand out medial line melanoma: concern with bilateral neck dissection, dermato-mucous lesion: more aggressive? Incisional biopsy: only in exceptions, trap for staging. Sentinel lymph node technique useful for staging and treatment. Breslow > 1.7mm, clinical cervical N0, importance of sentinel lymph node.

Dermoscopic Behavior of a Melanoma: 10 Months Follow-up

Daniela Milheti; Danielli Dezen; Margarida Carneiro; Cristina Abdalla; Nilceo Michalany

Health center support and check-up – Hospital Sírio-Libanês – São Paulo

In this case, we show the 10 months dermoscopic development of a melanoma “in situ”. We could get this follow-up because the patient did not allow the excision at the first assessment. Male, 43, phototype I. In the first appointment, there were multiple melanocytic nevi and a pigmented lesion on the trunk, indicating suspicious diagnosis of melanoma. The physical examination revealed an asymmetric 10 mm pigmented papule, colors with various shades of brown and irregular borders. He mentioned that his father and sister had been submitted to melanoma excision and that he had sun burning in his youth. Even though we instructed him to submit himself to the immediate excision, he chose not to, however 10 months after, he returned saying that the lesion had grown. He did not start the dermoscopic follow-up, thinking it would not be important to his skin cancer prevention. Dermoscopy: an asymmetric melanocytic lesion, atypical pigmented net, streams, dots and globules at the periphery and an excentric blotch. 10 months after it showed veil and abrupt edge. After the first excision, the histopathological exam revealed melanoma “in situ”. A second new excision was necessary to enhance the surgical margin. The patient has been kept in dermoscopic follow-up since then. Melanoma “in situ” is the phase for the best prognosis, and metastasis risks are very low. The previous diagnosis depends on a good clinical and dermoscopic approach. Some studies reveal that benign lesions can change themselves to melanoma in only 3

months. The fact that this melanoma remained in “in situ” stage for 10 months, prompts us to investigate which phenomena can determinate the growth of melanoma. Self examination and dermoscopic follow-up is essential to avoid the late diagnosis of invasive melanoma.

Dermoscopy of Pseudomelanoma

Renato Bakos; Lucio Bakos

Servico de Dermatologia HCPA –UFRGS– Porto Alegre

Background: Recurrent melanocytic lesions after surgical excision can pose diagnostic difficulties. Differential diagnosis of recurrent melanocytic nevus, also called pseudomelanoma, from reactive hyperpigmentation or recurrent melanomas may be challenging. Although dermal melanocytic nevi are not considered at great risk for malignant transformation, they are often removed due to aesthetic purposes. In such cases shave-biopsies are commonly used because they usually offer better cosmetic results. However a minority of patients submitted to shave-biopsies can present persistent residual melanocytes on the scar area. The intraepidermal proliferation of these residual melanocytes results in a new melanocytic lesion sometimes clinically, dermoscopically and histopathologically difficult to distinguish from melanoma. They usually appear in young adults within 6 months after shave excision. Dermoscopy has been widely used to differentiate melanocytic lesions.

Objectives: To demonstrate the dermoscopic findings of pseudomelanoma after shave biopsy of a dermal nevus and to illustrate the importance of the correct diagnosis.

Methods & Results: Case Report- a 15-year-old boy, phototype IV, visited our clinic for regular follow-up of nevi. Clinical examination revealed clear-cut benign dermal nevi and pityriasis versicolor. For cosmetic purposes, the patient decided to have removed a dermal nevus on his back by shave biopsy. Histopathology confirmed dermal nevus. Two months after excision, the lesion presented of irregular dark macule on the scar surface. Performing dermoscopy we observed a heterogeneous pigmentation with some globules and irregular discontinuous streaks. **Discussion:** Dermoscopy is a useful, non-invasive tool to the early diagnosis of melanoma and differential diagnosis with other pigmented lesions. The term pseudomelanoma, suggested by Kornberg and Ackermann, is an uncommon reaction secondary to partial excisions of dermal melanocytic nevi in which residual melanocytes proliferate in the

epidermis and present a morphologic pattern similar to superficial spreading melanomas but behaving in a benign way. On dermoscopy, pseudomelanomas have been demonstrated to show globules and heterogeneous pigmentation what can differentiate them from post-surgical reactive hyperpigmentations that shows more often a regular network and streaks. In our patient the dermoscopic findings were more in accordance with pseudomelanoma. It is very important to be aware of this uncommon reaction in order to explain to the patient the benign character of the lesion, and to manage correctly pigmented lesions on scars.

Desmoplastic Spitz Naevus Arising Within Congenital Naevus Spilus

Larissa Hanauer; Carlos Barcaui; Gilles Landman; Juan Pineiro-Maceira

Instituto de Dermatologia Prof. Rubem David Azulay – Rio de Janeiro

Naevus spilus (NS) is a relatively common cutaneous lesion that may be congenital or acquired; however, its etiology remains unknown. Naevus spilus defines a café-au-lait macule with superimposed maculopapular speckles. Occasionally, the onset of neurotized naevi, blue naevi or Spitz naevi has been reported in conjunction with naevus spilus. The need for close follow-up of patients with NS is underlined by reports of several cases of cutaneous melanoma developing within such lesions. The follow-up by digital dermatoscopy and excision of lesions with dynamic changes may assist in the early detection of melanoma.

Justificative: The rare report of desmoplastic spitz naevus arising within naevus spilus. **Case report:** A 20-year-old man presenting with extensive congenital NS on the trunk, asked for a dermatological evaluation because of the onset and progressive enlargement of a asymptomatic dome-shaped nodule on his back in the last year. Physical examination revealed a 1 cm reddish-brown hemispherical nodule, arising within nevus spilus. On dermoscopy, were observed dark brown and blue clods, with the distributed asymmetrical. The lesion was surgically removed. Histopathological examination revealed, moderate epidermal hyperplasia, a well-circumscribed, symmetric proliferation consisting of large, spindle-shaped and epithelioid melanocytes in a fascicular arrangement in the superficial and profound dermis. The lesion showed maturation from top to

bottom. Moderate atypia, but no mitotic figures were found. Intensive desmoplastic features was observed. A diagnosis of desmoplastic Spitz naevus within naevus spilus was made. After this diagnosis, another surgery was made to amplificate the margins (0,5 cm). **Discussion:** Desmoplastic spitz naevus is an uncommon melanocytic lesion. The histologic features of this benign tumour may mimic those of certain benign or malignant neoplasms. Occasionally, the onset of Spitz naevi has been reported in conjunction with naevus spilus. On reviewing international literature we discovered 13 patients in whom Spitz naevi developed within a background of naevus spilus. But we didn't find a case of desmoplastic spitz arising within this kind of lesion. Although NS cannot be considered a marker of risk for melanoma, malignant degeneration has been reported in 15 cases. The follow-up by dermoscopy and excision of lesions with dynamic changes may assist in the early detection of melanoma or others neoplastic degenerations.

Diagnostic Difficulties and Poor Outcome Related to Regressed Cutaneous Melanoma

Camila A Seque; Viviane S Higashi; Laura S Maehara; Milvia MSS Enokihara; Mauro Y Enokihara.

Escola Paulista de Medicina – UNIFESP São Paulo

Cutaneous melanoma (CM) is a tumor with high metastizing potential. Breslow thickness, ulceration, mitotic index are some of the prognostic factors. Partial regression occurs in 10 to 35% of CM and complete regression is a rare condition, with only 40 cases reported. We detail 2 cases of regressed cutaneous melanoma (RCM), whose diagnoses were related to the presence of metastasis. Case 1: a 68-year-old white woman presented with a three-year history of a infraclavicular brownish macule. Previous excisional biopsy, performed at another hospital, revealed actinic keratosis. Histopathological (HP) review suggested chronical superficial dermatitis with pigmentary incontinence and fibrosis. She also presented a 6-months history of axillary lymphadenopathy, which revealed a poorly differentiated tumor stained with the immunohistochemical (IHC) markers S100, HMB45 and Melan-A. Full body computed tomography (CT) exhibited adrenal and pulmonary metastasis. Another analysis of the first biopsy suggested a regression area of a melanocytic lesion. Although chemotherapy was

performed, the patient died 2 months after metastatic melanoma diagnosis. Case 2: a 62-year-old white woman presented with a two-year history of a dorsal pigmented lesion. Incisional biopsy exhibited dermal melanocytosis with fibrosis and intense pigmentary incontinence. After 1 month, she presented with hemiparesis. CT scan revealed brain metastasis, which excision with HP and IHC studies confirmed melanoma metastasis. Excisional biopsy of the dorsal lesion confirmed RCM after HP and IHC studies. Although radiotherapy was performed, the patient presented with another cerebral metastasis after 4 months. RCM diagnosis can be challenging, mainly in cases of complete regression and, it is impossible to determine Breslow thickness in these conditions. In both cases, the initial biopsy did not reveal melanoma and the diagnosis was based on clinical features leading to further investigation. Besides there is no difference in prognosis for invasive melanoma comparing incisional or excisional biopsy, there aren't studies that analyze this in cases of RCM and excisional biopsy should be the first choice. Regression and its' effects on prognosis of CM are not well established. Some authors relate a higher prevalence of metastasis to it, matching with our cases, in which the RCM had worst prognosis, probably related to the tumor aggressiveness or to the difficulty for establishing an early diagnosis and staging.

Digital Dermatoscopy Monitoring of Patients at High Risk for Melanoma in one Single Institution: Analysis of 13.038 Lesions

Bianca Costa Soares de Sá; Gisele Rezze; Michelle Mansur; Simone Franco; José Fregnani, João Duprat

Aims: Short-term impact on melanoma mortality lies on early diagnosis. The objective was to determine the incidence of changed nevi and melanomas in patients at high risk using digital dermatoscopy follow-up. **Methods:** Patients at high risk for melanoma who underwent baseline cutaneous and dermatoscopy photography between March, 2003 and November, 2007 and had at least 1 follow-up visit. The images were analyzed by two experts dermatologists using the FotoFinder Dermatoscope®. Biopsy specimens were obtained of all changed lesions. The specific changes considered were enlargement, changes in shape or color, regression or

appearance of known dermatoscopic features. **Results:** Total of 254 patients, median age at baseline was 38,6 years, 54,7% male, 28% family history of melanoma and 50,4% personal history of melanoma. A total of 13308 lesions were monitored and 289 changed lesions were detected: 225 common nevi, 46 atypical nevi, 13 non-melanocytic lesions and 5 melanomas (3 in situ melanomas and 2 thin melanomas). The incidence of melanoma was 1,96 per 100 patients (1,73% of all changed lesions). **Conclusions:** The use of dermatoscopy technique in clinical practice has increased the accuracy in diagnosing cutaneous melanoma. However, monitoring patients at high risk for melanoma, specially the ones with multiple nevi, is not quite simple. Digital dermatoscopy follow-up allows detection of morphological changes over time that may represent initial malignant transformation and also permits early detection of melanomas in high risk patients, improving their prognosis.

Emotional Profile of Melanoma Patients

Ana Gabriela Salvio; Michelle R. Ferreira; Ary Assumpção Júnior; Jose Getúlio M Segalla

Background; Nowadays, cancer is considered a chronic and treatable disease. When diagnoses made at early stages it can be cure. The impact of the diagnostic of melanoma can produce distinct feelings according to patient's history of life, culture, family and the information about the disease. The present study has the purpose of identification the emotional expression of melanoma patients from psychology service of Amaral Carvalho hospital during the year of 2008. **Methods:** Were evaluated 120 melanoma patients, searching for symptoms of depression, anxiety, coping, presence of others points of suffering and death association. **Results:** Clinical Stage (CS) 0, I and II depression symptoms (CS0=26%, CSI=44% e CSII=36%) and anxiety (CS0=66%, CSI=61% and CSII= 77%) were associated with other points of suffering (CS0=73%, CSI=71% and CSII=59%). They showed low index of coping (CS0=33%, CSI=44% and CSII=22%) and death association (CS0=40%, CSI=44% e CSII=45%). At stage III, 52% had others points of suffering and stage IV, 52%. At this stages patients experience the fear of death and limitations due to the disease, leading to more anxious symptoms (CSIII=76% and CSIV=100%) than

depression symptoms (CSIII=40% and CSIV=50%), with few coping (CSIII=36% and CSIV=16%) representing the highest numbers of death association (CSIII=72% and CSIV=100%). **Discussion:** This is not an absolute emotional pattern. Patients on Stage 0, I and II are able to come back to their usual routine, keeping away from the hospital routine. This decreases the fear of death. Corporal image is not affected. Stage III and IV patients keep the attention to the disease, living the experience and the cancer diagnose. **Conclusion:** It is important to emphasize subjective of melanoma patient, his history of life, his moment, to offer an effective emotional support during all the phases of melanoma treatment, decreasing the suffering caused by the disease.

Epidemiologic and Histopatologic Profile of the Melanoma Cutaneous in Criciúma/SC Between 2005 and 2007.

Luiz Felipe Blanco; Patrícia Konrad; Nággela Tenca; Luciana Carvalho; Luiza Ramos; Sander Tessaro
Universidade do Extremo Sul Catarinense (UNESC)

The melanoma is the most aggressive cutaneous tumor and with higher mortality rate, although it represents only 5% of the skin cancer. The incidence comes mainly increasing worldwide among individuals of clear skin. The town of Criciúma/SC has a predominance of Italian ethnicity with more susceptibility to this type of tumor. **Objective:** To know the epidemiologic and histological profile of the primary cutaneous melanoma, in the town of Criciúma, during 3 years. **Material and Methods:** Study of revision of the reports of patients with diagnoses of primary cutaneous melanoma, diagnosed in the town of Criciúma, between January of 2005 and December of 2007. The research includes the age, the sex, the anatomical location, the histological type, the level of Clark and Breslow index. The data was analyzed through simple statistics. The population of Criciúma in 2007 is of 190000 inhabitants. **Results:** The age varied from 15 to 85 years old (average of 51 years). The predominance was between 3rd and 5th decades; more frequent in the feminine sex (59.7%). The most frequent localization was the torso with 25 patients (40.9%) and 60% of the cases in men. In the women it predominated in the lower limbs corresponding to 30.5%. The histological type most

frequent was the superficial spreading melanoma (32 patients, 50%). As for the level of Clark, the most frequent was the level III (32.3%) followed by level I (29.2%). In most of the cases the melanomas presented Breslow in situ (29.6%) and right after the smaller or equals to 0,75mm (25%) with an average of 1.89mm. The rate of melanoma in Criciúma was in 2005 of 12.6 cases in 100 000 inhabitants, and in 2006 was of 15.2 and in 2007 was of 9.4 **Conclusion:** There is a high incidence of cases of melanoma per 100.000 inhabitants (average 12.4), bigger than the national and state average. However, the study showed that most of the melanomas was small and with good possibility of healing.

Epidemiologic Characteristics of Melanoma Patients Treated in a Reference Center

Felice Riccardi; Humberto Matos; Ângela João; Felipe Rodrigues; Tadeu Ambros

Oncology Surgery Department – Melanoma Unit/Hospital Santa Rita – Complexo Hospitalar Santa Casa de Porto Alegre

The incidence of cutaneous melanoma has increased considerably in recent years. It represents 5% of malignant skin tumors, but it has a high mortality. In Brazil, Rio Grande do Sul has the second highest incidence with approximately eight gaúchos with the disease per 100.000 inhabitants per year, only behind the state of Santa Catarina. **Objectives:** Portray the profile of a sample of patients with cutaneous melanoma. **Methods:** This is a retrospective descriptive study which enrolled 290 patients diagnosed with melanoma, treated between August 2000 to March 2009, by a single surgeon in a reference center of Porto Alegre. The analyzed criteria included: gender, age, anatomical location and histopathological aspects of the primary lesion. Information was obtained through a specific protocol for assessment and monitoring of patients with melanoma. **Results:** Of the 290 patients examined, 300 lesions, 165 (56.9%) were women and ages ranged from 20 to 92, with an average of 53.8 years. The most common anatomic site was the trunk, with a total of 124 patients (43.1%). Superficial spreading melanoma was the histologic type with the highest incidence (63.8%). Fifty-two (17.9%) had melanoma in situ. Out of 238 patients with invasive melanoma, the most common thickness was ≤ 1.00 mm in 84 patients (35.14%). The Breslow's thickness ranged

from 0.19 to 20.0 mm, with an average of 2.37 mm (standard deviation = 2.9). Clark levels II, III, IV were 17.6%, 24.1% and 36.9% of cases, respectively. Ulceration was found in 19% and regression was evident in 34.5% of patients. Mitotic rate ≤ 4 was found in 72.7% of tumors.

Conclusion: The data obtained in this study had similar results to those found in the medical literature revealing similar patterns of anatomic site presentation, Breslow's thickness, Clark level, ulceration, regression and mitotic rate.

Evaluation of Cutaneous Melanoma Patients Submitted to Sentinel Lymph Node Biopsy During the Years of 2008 at Amaral Carvalho Hospital

Ana Gabriela Sálvio; Ary Assumpção Júnior; Jose Getúlio M Segalla

Departamento de Pele do Hospital Amaral Carvalho de Jaú

Background: Sentinel lymph node biopsy is currently the most powerful staging and prognostic tool. The analysis of the sentinel lymph node with more accurate methods, such as immunohistochemical stains and RT-PCR, allows detection of smaller nodal metastasis. The benefit of a radical treatment for these patients is discussed. The present study has the purpose of analyze the melanoma patients submitted to sentinel lymph node biopsy at Amaral Carvalho during the year of 2008 and calculate the disease free survival according to lymph node status. **Methods:** It was evaluated 80 cutaneous melanoma patients from Departamento de Pele - Amaral Carvalho Hospital, submitted to sentinel lymph node biopsy during the year of 2008. It was classified according to gender, number of sentinel lymph nodes found. Disease free survival was performed in three groups: macrometastasis, micrometastasis and negative lymph node. **Results:** According to gender, 55% was male and 45% female. Two patients the cintilography did not show any lymph node. In 74% of patients 1 or 2 lymph nodes was identified. The macrometastasis group (n=19) showed 32% disease free survival in 14 months, the group micrometastasis (n=7) showed 100% and the group negative lymph node (n=54) 88%. There was statistic significance between the groups. **Discussion/ Conclusion:** Sentinel lymph node biopsy is a minimally invasive procedure and provides

prognostic information and identifies candidates for systemic adjuvant therapy and radical surgery. In this study, macrometastasis group showed the worst disease free survival and the micrometastasis group showed the same disease free survival as negative lymph node. It is necessary more studies with more follow up period to confirm these values.

Evaluation of Patient Learning About the ABCD Rule: a Randomized Study in Southern Brazil

Renan Rangel Bonamigo; Karen Reetz Müller; Thayse Crestani; Gisele Chiaradia; Maria Carolina Widholzer Rey

Dermatology Department - Universidade Federal de Ciências da Saúde de Porto Alegre (UFCSPA)

Background: the ABCD rule is used to guide physicians, health care professionals and patients to recognize the main characteristics of suspicious skin lesions for melanoma. In Brazil there are no studies to validate the use of the ABCD rule by patients after instructions given by dermatologists. **Objectives:** to evaluate the learning of the ABCD rule by patients at a dermatology center of reference in Southern Brazil. **Methods:** randomized study, with 80 outpatients. The following were evaluated: sex, age, level of schooling, monthly income and access to means of communication. The intervention group received instructions regarding the use of the ABCD rule and the control group did not. Both groups were evaluated at three points in time (baseline; outside the office; and in the doctor's office, 15 days later) regarding their answers about a panel of photographs with eight different types of lesions, including three melanomas. The level of significance used was $p < 0.05$ and a power of 0.80. **Results:** the group that received the information answered correctly regarding the diagnosis of the melanomas at tests 2 and 3 more often compared to the control group, by analysis with the Chi-square test ($p < 0.01$). Except access to radio broadcasting, which had a positive influence of the results ($p < 0.05$), the other variables evaluated did not influence the results. **Conclusions:** the ABCD rule can be used to train Southern Brazilian patients, above the age of 17 years, to identify changes that suggest melanoma. This learning is independent of sex, level of schooling,

monthly income and access to means of communication, except the radio.

Experience in the Study of Sentinel Lymph Node in Malignant Melanoma: 64 Case Reports

Eduardo Miranda Brandão; Carolina Matias; Rogério dos Santos; Márcia Lemos; Marcel Pinto

Clínica UNIONCO; REAL NUCLEAR- Hospital Português; Faculdade de Ciências Médica- UPE. Recife

Lymphatic mapping with biopsy of the sentinel lymph node (SLN) is a widely employed procedure in the management of patients with malignant melanoma and SLN status is an important prognostic factor. Few Brazilian centers report their experience and results. We report 64 cases of patients with melanoma submitted to lymphatic mapping and SLN biopsy in the city of Recife (PE, Brazil) between October 2000 and January 2009. The following were the indications: Breslow > 0.75 mm or Clark IV or presence of ulceration. A total of 64 patients [30 females (46.8%) and 34 males (53.2%)] with a median age of 51 years (6 to 88 years) were submitted to preoperative lymphoscintigraphy with Technetium-99m and biopsy guided by patent blue vital dye associated to a manual gamma probe. After removal, the lymph nodes were submitted to histopathological and immunohistochemical analysis. Complementary lymphadenectomy was only performed on patients positive for SLN. The location of the primary tumor was the trunk (42.3%), upper limbs (12.5%), lower limbs (31.2%), head and neck (12.5%) and vulva (1.5%). Ulceration was observed in 18 cases (28%). Median size of the primary tumor was 1.5 mm (0.3 to 15 mm); 12.5% were Clark II, 39% Clark III and 39% Clark IV. In 9.5% of the cases, the Clark stage was unknown. Sentinel lymph nodes were identified in 96.8% of the patients, with a median of two lymph nodes per patient (0 to 5). Lymph nodal metastases were found in eight patients (12.5%) – four macrometastases, one micrometastase and three only through immunohistochemical analysis. After lymph nodal dissection, additional metastases were found in two of these cases. The incidence of metastasis in the sentinel lymph node was 0% for Breslow ≤ 1 mm, 13.6% for Breslow between 1.1 and 2 mm, 20% for Breslow between 2.1 and 3.9 mm and 42.8% for Breslow ≥ 4 mm. Early complications were observed in four patients (6.25%) – two seromas, one decompensation of diabetes

and one localized lymphangitis. Median follow-up time was 24 months (3 to 64 months). Eighteen patients were not followed up (28%). In the others, a systemic relapse occurred in one patient (initially with compromised lymph node). The study of SLN is a feasible, safe procedure and relevant prognostic factor for patients with early stage malignant melanoma, enabling fewer complications in the management of these patients.

Familial and Multiple Melanomas: Analysis of Clinical and Histological Characteristics

Thaís Grazziotin; Maria Carolina Rey; Elisângela Welter; Felice Riccardi; Renan Bonamigo

Universidade Federal de Ciências da Saúde de Porto Alegre, Porto Alegre

Risk factors for malignant melanoma include familial background of melanoma or pancreatic carcinoma and personal history of multiple primary melanomas. This study aims to evaluate epidemiological and histological characteristics of patients with hereditary or multiple melanomas by analyzing clinical features and microstaging criteria. **Methods:** Patients with multiple primary melanomas or diagnosis of melanoma and familial history of melanoma or pancreatic carcinoma were selected from database of Santa Rita Hospital (Complexo Hospitalar Santa Casa de Porto Alegre) from 2000 to 2005. Information about clinical, epidemiological and histological variables was collected from patient medical files and histological reports and subsequently analyzed by using SPSS statistic software. **Results:** Twenty patients were included in the analysis, totalizing 52 melanomas. Sixty percent presented multiple primary melanomas, 30% had familial background of melanoma and 10% of pancreatic carcinoma. The most frequent histological types of melanoma were lentigo maligna melanoma (44.2%) and superficial spreading melanoma (42.3%). The majority of melanomas (71.2%) were classified as thin (tumor thickness ≤ 0.75 mm) and showed Clark Level I (55.8%). The median of Breslow index was significantly lower in multiple melanomas (0 mm, P25-75: 0.00-0.30) than hereditary sporadic melanomas (1 mm, 0.20-6.00, $P=0.035$). Besides, the median of primary ulcerated tumors was significantly higher (11.50 mm, 10.00-13.00) than non-ulcerated (0 mm, 0.00-0.36; $P=0.002$). **Discussion:** Lentigo maligna melanoma and

superficial spreading melanoma were the most common types of melanoma in patients with multiple or familial melanomas. The finding of a lower tumor thickness in multiple melanomas may be explained by a more precocious detection in patients submitted to periodic dermatological examination. An alternative hypothesis could be a variable biological or immunological behavior of the melanoma in this group of patients. The relationship between high tumor thickness and ulceration can be explained by the fact that both are independent prognostic factors for aggressive melanomas. The results contribute to the knowledge of epidemiological features of multiple and familial melanomas in a population sample from South Brazil.

Familial Melanoma: a Family of 12 Children with Six Affected Individuals with 10 Primaries

Alberto Wainstein; Nathália Paz; Gabriela Chaves; Eduardo Castro; Flávia Bittencourt; Bruno Oliveira; Fernanda Parreiras; Ana Paula Drummond.

BioCancer, UFMG, FHEMIG, ONCAD – Belo Horizonte

Approximately 5% to 11% of patients with melanoma have other relatives with melanoma. The follow-up of patients have a great importance in the identification of risk families. The genes CDKN2A and CDK4 are relevant for the genetic contribution to melanoma. Studies of families with high risk to develop melanoma show younger patients with early diagnosis, which leads to a better prognosis. **Objectives:** Identification of a family with high prevalence of melanoma to allow relevant studies of the genetic component of this neoplasia. **Methodology:** Analysis of a family with 12 children, in which father and mother did not have melanoma and 6 children were diagnosed with this malignancy. The patients have type 2 skin and had no dysplastic nevus syndrome. **Results:** The cases involved are: male, melanoma diagnosis at 28 years, died at 37 years; male, 30 years, had two melanomas located on the back and one on the left front; male, 34 years, presented a cervical melanoma; female, 37 years, had two melanomas pre-sternal and one on left malar; female, 44 years, had a melanoma in the left temporal region; female, 33 years, had two neck melanomas and a malar one. **Conclusion:** All affected and not affected members of the family had their biological samples collected and are being studied

for genetic correlation. In the first analysis, the most prevalent mutations in CDKN2A and CDK4 genes were not identified. The DNA of patients is being sequenced to search a genetic and clinical correlation.

Follow up of Two Cases of Melanoma: Distinct Findings, Conduct and Development

Érico Di Santis; Antonio Priante; Cesar Cardoso; Marcia Alvarenga; Samuel Mandelbaum
University Hospital of Taubaté, Taubaté

Case 1: N.N.N. 86 years old, male, with pigmented lesion on the back with one year of evolution. Excisional biopsy: superficial spreading melanoma with vertical growth, Clark level IV, Breslow depth 3 mm, mitotic index 18 in 10 large fields, moderate peritumoral infiltration, light intratumoral infiltration, angiolymphatic invasion present, not detected perineural invasion, microscopic satellitosis absent, ulceration present, no associated nevus, regression present and free surgical margins. Staging exams were normal. Treated in another service, with margin ampliation and primary suture. Pathology analysis: fibrosis without residual tumor. He returned to consultation 17 months later with a black papule close to surgical scar. Excisional biopsy showed recurrent melanoma in the dermis. After eight weeks he shows hypotony in right upper limb; MRI showed brain metastases. He is been submitted to brain radiotherapy. Case 2: S.M. 78 years old, male. Complaining of “stain on the back that turned wound” for approximately two years. Clinical examination showed a tumor with 15 mm of diameter and erythematous halo plus right axillary lymph node enlargement. Excisional biopsy: nodular melanoma, vertical growth phase, Clark level IV, Breslow depth 6.6 mm, mitotic index 10 mitoses in 10 large fields, moderate peritumoral lymphocytic infiltration, light intratumoral infiltration, angiolymphatic invasion not detected, areas of regression present, satellitosis not detected, ulceration present, nevus associated absent, surgical margins free. The clinical, laboratory and imaging staging were normal. Ampliation of margins and right axillary lymph node dissection were performed. Pathology analysis showed: no residual tumor in the skin; free axillary lymph nodes. In a 14 months follow up, without signs of disease. Report two cases of melanoma of similar time evolution and free surgical margins in excisional biopsies,

but with different pathological characteristics. In Case 1, despite the lower thickness, the mitotic index was high and angiolymphatic infiltration was present, factors related to poor prognosis too.

Germline Mutations of CDKN2A in Multiple and Familial Melanoma Brazilian Kindreds—Preliminary Results

Gilles Landman;¹ João Duprat Neto;² Alexandre Leon Ribeiro de Ávila;³ Dirce Carraro⁴

1-Pathology, Department Hospital A.C. Camargo, São Paulo,

2-Skin Oncology Department, Hospital A.C. Camargo,

3-Skin Oncology, Hospital A.C. Camargo, Sao Paulo

4-Molecular Biology, Hospital A.C. Camargo, Sao Paulo

Objectives: Report our experience in screening mutations of CDKN2A gene in Brazilian kindreds with clinical diagnosis of Familial Melanoma. This study is part of the Melanoma Genetics Consortium, (GenoMEL) in Latin America. **Methods:** Patients with multiple or familial clustering of Melanoma were genetically tested, applying the GenoMEL diagnosis criteria. Familial melanoma is described as a family in which either 2 first-degree relatives are diagnosed with melanoma, or families with 3 melanoma patients (irrespective of degree of relationship). Besides Melanoma, Pancreas carcinoma and Central Nervous System tumors were also considered in the inclusion criteria. Genomic DNA was extracted from peripheral blood samples, and submitted to direct sequencing. CDKN2A gene was divided into 4 fragments covering the 4 exons with substantial parts of intron regions. Blood sample was collected from one adult healthy control that did not present mutation in CDKN2A gene and it is used as a reference. **Results:** To the moment, 23 patients with clinical diagnosis of Familial Melanoma and 10 patients with Multiple Melanoma were included. We found a double mutation in the exon 2, G101W and A148T, in one patient with Familial Melanoma, 1/23 (4,33%). The same A148T mutation was found in two patients with Multiple Melanoma diagnosis, 2/10 (20%). **Conclusion:** Melanoma is hereditary in approximately 10% of cases, although the frequency of mutations varies according to many factors. Our group, in association with GenoMEL genetics consortium, conduct the first study among families affected with Melanoma in Brazil. Our mutation detection rates were lower than

previously expected, but more patients will be included until the end of this study.

Head and Neck Cutaneous Melanoma

André B O Santos; Ivan D A O Santos Filho; Andrea F Oliveira; Felipe Moraes; Ivan D A O Santos.

Universidade Federal de São Paulo – UNIFESP/EPM – São Paulo

The ideal treatment for cutaneous melanoma in the head and neck remains controversial. The surgical decision is usually taken regarding the thickness of the primary lesion, the clinical examination and preoperative lymphoscintigraphy to evaluate lymphatic drainage. This study assesses the experience in the treatment of cutaneous melanoma located in the head and neck. **Methods:** 83 consecutive and non randomized patients were treated and followed by the same surgeon for 20 years. According to the Breslow thickness and Clark level, the surgical approach was defined. For patients with tumor thickness less than or equal to 1mm, the safety margin was only expanded and for patients with tumor thickness over 1mm, after the advent of the sentinel lymph node biopsy, this procedure was indicated. In patients with skin lesion localized in the cervical region, after the margins were widened the modified radical elective lymphadenectomy with preservation of the sternocleidomastoid muscle, accessory nerve and internal jugular vein was made. **Results:** Patients were divided by the thickness of Breslow, 17 patients had lesions in situ, 24 with up to 1 mm thick, 16 patients between 1.1 and 2.0 mm, 10 with a thickness between 2.1 and 4.0 mm and 9 patients over 4.0 mm. 9 patients underwent modified radical therapeutic lymphadenectomy, 6 indicated for elective modified lymphadenectomy, 15 had a biopsy of the sentinel node done, but only one patient had a sentinel node impaired and in 36 patients only the excision of the lesion and widening of the margins was made. Only one patient had local recurrence, however satellitosis existed at the time of excision of the tumor. One patient with negative sentinel lymph node presented locoregional recurrence after one year. No patients submitted to lymphadenectomy presented loco-regional recurrence. **Discussion/Conclusion:** The region of the head and neck presents technical difficulty in conducting the search of sentinel lymph node due to irregular anatomical distribution of lymphatic drainage. When the primary lesion is located in

the cervical region, the technical difficulty increases as the site of injection of the technetium for lymphoscintigraphy is above the area of lymphatic drainage. In such cases, the elective lymphadenectomy may benefit patients, since the lymph nodes to be dissected are exposed after the excision or enlargement of margins of the primary lesion. This procedure can avoid the need for implementation of future therapeutic neck dissection in a scarred region of flap rotation. Other aspects of the treatment of melanoma in this region should be discussed.

Head and Neck Melanoma: a Retrospective Study of 51 Cases with Assessment of Prognostic Factors and Survival

Marcio Studart da Fonseca; Bruno Teixeira; Josualdo Alves Junior; Marcos Fernandes

Cancer Hospital-Cancer Institute of Ceará

Although infrequent, the malignant melanoma (MM) of skin keeps a increasing incidence. It occurs mainly in people with white skin. Although genetic factors are involved, the ultraviolet radiation (UV) has been considered as the most important causal factor, particularly when the excessive sun exposure occurs in childhood. Despite the presence of non-melanoma skin tumors is not uncommon in the head and neck as an area of high sun exposure, the prevalence of involvement by malignant melanoma in this region tends to be lower when compared to other areas of the skin. Melanoma usually happens around the fifth decade of life. This work aims to study the behavior of melanomas in the head and neck region correlating it with the data obtained from literature and compared with melanomas in other locations. **Material and Methods:** We analyzed 51 cases of melanoma of head and neck diagnosed in specialized institution from records of medical records from January 2000 to August 2003. We studied the following variables: gender, age, margins (free or engaged), presence or absence of regression, angiolymphatic invasion and ulceration, in addition to the criteria of Breslow and Clark. **Results:** From a population of 128 cases of melanoma 51 were found on the cervicofacial segment. Thirty one were women (60.8%) and average age was 56 years. There was histologic prevalence of subtype Lentigo Maligna Melanoma (33%). Approximately 88.2% of cases had Breslow thickness bigger than 1mm. About 31.4% of the cases

showed infiltration level Clark IV. There was ulceration in about 80.3% of cases. Nine patients underwent sentinel lymph node biopsy. The overall survival was over 90% in three years. **Conclusion:** Even in a region where most skin lesions are easily highlight the prognostic factors of Breslow, ulceration and Clark show the late diagnosis in the majority of the population. However as with the general literature the high prevalence of subtype Lentigo Maligna Melanoma favors better results of survive. **Keywords** - melanoma, head and neck; prognostic factors

Histological Features of Sentinel Lymph Node Biopsy for Malignant Melanoma as a Predictive Indicator for Completion Lymphadenectomy Status

S. William Hazard, MD;¹ Loren E. Clarke, MD;² Jason M. Hancey, MD;¹ Donald R. Mackay, MD;¹ Rogerio I. Neves, MD, PhD.¹

1-Division of Plastic Surgery, Penn State Hershey Medical Center, Hershey, PA, USA

2- Department of Pathology, Penn State Hershey Medical Center, Hershey, PA, USA

Objectives: Malignant melanoma is the eighth most common cancer in North America and the most lethal form of skin cancer. Lymphatic mapping and sentinel lymph node biopsy have been shown to accurately stage patients with melanoma and remain the most powerful predictor of recurrence and survival in patients with Stage I and Stage II melanoma. The objective of this study is to determine if histological characteristics of melanoma metastases in the sentinel node predict completion lymphadenectomy status. **Methods:** This study was conducted with the approval of the Institutional Review Board protocol number 27543. Patients diagnosed with melanoma treated at the Hershey Medical Center from 1999-2007 who had a positive sentinel lymph node biopsy were included in the study. In total 23 patients (28 SLNs) were examined and the following data recorded: number of positive SLNs, number of discrete foci of tumor deposits, diameter of the largest deposit, maximal distance of melanoma cells from the interior margin of the SLN capsule and deposit location. A logistic regression model was used

to assess the association of the potential predictor with the completion result. **Results:** The odds of a positive completion result are 3.51 times higher if the number of discrete metastatic foci is greater than 1 as compared to the number of discrete foci equal to 1; however, this was not statistically significant (odds ratio 3.51; 95% CI (0.49, 31.93); p-value=0.28). A similar trend was seen in the other potential predictors: tumor penetration depth >1mm vs. tumor penetration depth <1mm showed an odds ratio 2.60; 95% CI (0.37, 23.08) p-value=0.47, diameter of largest deposit >1mm vs. diameter of largest deposit <1mm showed an odds ratio 2.60; 95% CI (0.37, 23.08) p-value=0.47. Tumor spread beyond the subcapsular space showed odds of a positive completion result are 5.86 times higher 95% CI (0.73, 79.24) p-value=0.11. **Conclusion:** Although not statistically significant, this study suggests that microanatomic features of the SLN may predict completion lymphadenectomy status and thus prevent some patients from undergoing unnecessary surgery. We believe that with future patient enrollment this study will have adequate power to answer the aforementioned study goals.

Hyperthermic Isolated Limb Perfusion in the Treatment of in-Transit Melanoma Metastases

Victor P. Pasin; Andrea F. de Oliveira; Ivan D.A.O. Santos; Lydia M. Ferreira

Setor de Tumores Cutâneos da Disciplina de Cirurgia Plástica da Escola Paulista de Medicina - Universidade Federal de São Paulo - EPM/ UNIFESP; São Paulo

Five to eight per cent of high risk melanoma patients will develop in-transit metastases, defined as dermal or subdermal lymph metastases between the primary tumor and the regional nodal basin. Isolated Limb Perfusion (ILP) has been used as a treatment for melanoma of the extremities since 1958, and its principle is the surgical vascular isolation of an extremity, possibiliting the administration of a high dose of chemotherapy or other biological agent to a affected limb by extracorporeal circulation, with minimal systemic exposition. The aim of this study is to evaluate our cases at the Skin Tumors Sector of Plastic Surgery Division at Federal University of São Paulo in relation to ILP for the treatment of in-transit melanoma metastases, as well as the results, comparing them with international literature. **Methods:**

From May 1993 until April 2007, 41 patients with in-transit metastases of skin melanoma were submitted to 44 ILP. Medical registry observations were evaluated in terms of regional and systemic toxicity and tumoral response after ILP. The obtained results were compared with international literature and posterior conclusions were done. **Results:** We observed 43.2% of complete responses, 36.4% of partial responses and 20.4% of no responses after the procedures. Acute regional toxicity was in general restricted to slight erythema or edema, and there was no single case of serious systemic complication. **Conclusion:** The obtained data are in accordance with international literature demonstrating the importance and the possibility of ILP for locoregional control of in-transit metastases of skin melanoma also in Brazilian reality.

Impact of Sentinel Lymph Node in Melanoma Staging and Correlation with Survival

Marcio Studart da Fonseca; Bruno Teixeira; Josualdo Alves Junior; Irapuan Araujo Filho
Cancer Hospital; Cancer Institute of Ceara

The incidence of malignant melanoma is increasing. The lymphatic spread of the disease usually begins by sentinel lymph node (SLN), which histological analysis can predict the onset of the entire lymph node chain. This study aims to ratify the importance of study of sentinel lymph node in patients with malignant melanoma, so avoiding unnecessary radical lymph node dissections and correct identification of the lymphatic chain, particularly when the tumor is located in areas of ambiguous drainage. **Material and Methods:** A retrospective study was performed of 90 consecutive cases of melanoma without clinically significant lymph nodes (cN0), treated in a reference hospital from January 2000 to December 2003, correlating clinical data and the findings of selective lymphadenectomy with survival analysis. We studied the following clinical and histological variables: type, location, gender, age, Clark, Breslow, presence of regression and the presence of lymph node metastasis. **Results:** The mean age of patients was approximately 57 years. Regarding gender, 32 patients were male (35.5%) and 58 females (64.5%). There was a prevalence of skin melanoma (91.5%), with higher frequency of lesions on the lower limbs (26.6%). The median tumor thickness (Breslow) was 3 mm, while the median level of invasion

was Clark IV. Thirty-two percent of patients in this study had positive SLN and this finding was correlated with a negative impact in the survival. Systemic metastases occurred in lung (23.8%) and liver (21.4%). At 23 months 84.5% of patients were alive. In 36 months more than 90% of patients with negative SLN were alive compared with only just over 60% SLN positive group.

Conclusion: Sentinel lymph node biopsy was a safe method in lymph node staging, avoiding unnecessary elective lymphadenectomy in more than 60 patients (68%) proving to be effective in search of microscopic lymph node disease. The presence of positive SLN in the population studied had statistically significant impact on survival demonstrating the method usefulness for the pathological staging in the population studied.

Importance of Spect-CT in the Lymphatic Mapping of Melanomas

Eduardo Miranda Brandão; Paulo Almeida; Paulo Brandão; Monique Cardoso; Marcel Pinto

Clínica UNIONCO; REAL NUCLEAR-Hospital Português; Faculdade de Ciências Médica- UPE. Recife

The fusion technique of combining images of low resolution and high functional significance (single-photon emission computed tomography - SPECT) with high resolution images from computed tomography (CT) is incorporated to clinical practice with the designation SPECT-CT. With this method, the physiological state of ambiguous CT images and the identification of minimal anatomical abnormalities of pathological significance can be established. The primary advantage of the composition of images is the structure-function correlation. Subtle abnormalities seen in SPECT-CT can facilitate the planning and execution of percutaneous biopsies, surgery and radiotherapy. In 2006, guidelines were established for the use of SPECT-CT, consisting of the study of the entire body, segment or organ for the evaluation of tumors, thyroid and parathyroid diseases, heart and brain disorders as well as an evaluation of the lymphatic system. In the specific field of the lymphatic system and the evaluation of melanomas, recent data have demonstrated an increase in lymph node staging by as much as 5% of patients in relation to conventional lymphoscintigraphy. In obese patients, it has demonstrated an advantage over the conventional method in the detection of the sentinel lymph nodes (SLN). In January 2008, the UNIONCO and REAL NUCLEAR clinic (Recife-PE, Brazil), with

11 years of experience in lymphatic mapping with lymphoscintigraphy, began to use SPECT-CT with the equipment "PROCEDENCE - PHILLIPS SPECT" associated to "BRILLANCE - PHILLIPS" tomography, with the use of the TC-99 marker associated to dextran. Twelve exams were performed in a 15-month period, obtaining 100% SLN detection. The following were the locations of the melanomas: six cases in the lower limbs; four in the trunk; one in the head; and one in the neck. Double drainage was detected in one case and no anomalous drainage was detected. There was an evident improvement in the anatomical localization of SLNs and surgical time was shortened due to the greater ease in identifying SLNs. We conclude by highlighting the advance the use of SPECT-CT represents in the investigation of SLNs in melanomas and the facility it offers to the identification of these lymph nodes, especially in obese patients with lymphatic drainage in anatomical regions of difficult access. The use of SPECT-CT will certainly be extended to other areas of oncology, with the same advantages as those observed in cases of melanoma.

Intestinal Obstruction By Melanoma: Report of There Cases

Alberto Julius Alves Wainstein; Pollyana Anicio Magalhães; Fernanda Cardoso Parreiras; Graciele França, Bruno Righi Rodrigues de Oliveira; Fernando Augusto Vasconcellos Santos.

BioCancer, ONCAD - Belo Horizonte

Malignant melanoma is the most common cause of metastatic disease involving the gastrointestinal tract and small intestine is the site most frequently involved. The diagnosis is made late and that occur with chronic complications such as bleeding and intestinal obstruction.

Case report: Three patients in a private service to Belo Horizonte with a diagnosis of melanoma, which presented as a complication of intestinal obstruction by metastatic tumor. Case 1: Patient LLFC, 20 years, had a diagnosis of melanoma in the right parotid region in 2003, classified histologically as Clark III, Breslow 1.2 mm. In 2007, he was admitted with intestinal obstruction and submitted to laparotomy, he had several metastatic lesions in the small intestine, one with a metastatic polyps with a intussusception. He underwent palliative enterectomy. Patient progressed to death several weeks later with

palliation of symptoms. Case 2: RAS patient, 42 years old, was diagnosed with melanoma in 2002 at left forearm, classified histologically as Clark IV, Breslow 4mm. In 2008 was referred to palliative enterectomy due to intestinal obstruction caused by metastatic lesions in the ileum and cecum. Patient progressed to death 4 months later without intestinal symptoms. Case 3: ACS patient, 40 years, with a diagnosis of melanoma in 2005, Clark IV, Breslow 0.64 in the right ear. In 2007, had hematoquezia followed by intestinal obstruction. Laparotomy was indicated for resection of metastatic lesions located at terminal ileo. Patient progressed to death 3 months after surgery with no gastrointestinal symptoms.

Discussion: The small intestine is frequently affected by metastatic melanoma. Usually presents with multiple lesions and are manifested by abdominal pain, obstructive symptoms or gastrointestinal bleeding. The lesions that cause symptoms should be removed; however extensive resections are generally contra-indicated. **Conclusion:** The prognosis of patients with visceral metastases from melanoma is dismal: less than 5% of them survive a year after diagnosis. The localized intestinal symptomatic metastases should be removed in order to alleviate the acute complications related to gastrointestinal involvement and thereby improve the quality of life of these patients.

Intra Lymphnodal Polypeptide Vaccine Adjuvant as a Immunization For High Risk of Recurrence Melanoma Patients.

Alberto Wainstein, Karine Lima; Simone Botelho, Wilson Rocha; Luciana Silva; Ana Paula Drummond-Lage.

Biocancer, IAG-UFMG, Belo Horizonte.

Objectives: Phase I/II STUDY to evaluate a adjuvant polypeptide vaccine administered via intra-lymph nodal, composed of 3 antigens expressed in melanoma (Melan-A/gp-100/Tyrosinase) and theirs correspondent mimetic peptides more immunogenic, associated to GM-CSF and incomplete Freund's adjuvant for patients HLA-0201, stage IIb-III. **Methods:** All patients received 6 doses of vaccine, each one consisting of 3 injections in 3 normal lymph nodes guided by ultrasound, with an interval of 14 days among each dose. Patients were randomized into two arms to evaluate immunodominance "in vivo". Arm A- Received

a mixture of all 6 peptides in each of the 3 lymph nodes. Arm B- Received a combination of natural peptide with their mimetic distinctly in each of the 3 lymph nodes. Patients serum and PBMC were collected before vaccination and after the third and sixth doses of the vaccine. Evaluation of specific DTH for each peptide was performed after the third and sixth doses. For this phase of the project (phase I), the main parameters for evaluation were toxicity, adverse effects, tolerability and local reactions. Recurrence is being used as a secondary endpoint. Analysis of cytotoxicity for each peptide is being studied. The feasibility of intra-lymph nodal immunization guided by ultrasound was also studied. **Results:** All 12/12 expected patients were randomized. They are still being evaluated regarding the effectiveness of the vaccine by the disease free survival. The response to DTH is rising between the third and sixth doses and it is peptide dependent. The next stage of the project is the cytotoxicity and specific immunodominance analysis with serum and PBMC have been previously frozen from all patients. Besides the toxicity, we hope to understand if the immune system has the prerogative to select and process the immune-dominant peptide or if the presentation of only one peptide in each lymph node drives to a broad and effective immune response. **Conclusions:** Preliminary result shows that this intra lymph nodal polypeptide vaccine is safe and well tolerated without local or systemic side effects.

Irradiated Human Skin Allograft: a Safe and Affordable Temporary Wound Coverage Option in Skin Oncology

Rogerio I. Neves, MD, PhD;¹ Jason Hancey, MD; John Potochny, MD; S. William Hazard, MD;¹ Donald R. Mackay, MD;¹

Division of Plastic Surgery, Penn State Hershey Medical Center, Hershey, PA, USA

Aims: Introduce an option for temporary surgical wound coverage while awaiting histologic confirmation of surgical margins. **Methods:** The treatment of lentigo maligna, dermatofibrosarcoma protuberans (DFSP), and other skin tumors is often complicated by obscure clinical margins. Excision with wide margins often results in positive or histologically "close" margins. Use of Mohs micrographic surgery for melanoma and DFSP

remains controversial. Staged excision is occasionally necessary, but leaves the patient with an open wound for 2-7 days while pathologic specimens are evaluated. Many temporary wound coverage options have been used, including: dressing changes, hydrocolloid dressings, acellular dermal matrix, and skin grafting. We have now adopted the use of irradiated human skin allograft (IHSA) to temporarily cover our surgical defects while awaiting confirmation of tumor free margins. **Results:** Over the last 5 months we used IHSA 18 times in the treatment of 12 patients. Their diagnoses include: 4-Lentigo Maligna, 2-DFSP, 2-Recurrent SCC, 1-Amelanotic Melanoma, 1-Large melanoma (8cm), 1-Recurrent BCC. All patients had IHSA placed at their initial surgical resection. It was secured with a 4-0 running chromic suture, and covered with xeroform and gauze. The IHSA remained in place for 2-14 days. No patients required additional dressing changes between surgical procedures. No infections involving the IHSA occurred. After histologic confirmation of negative surgical margins, the IHSA was removed, and definitive coverage was obtained by flap or graft. **Conclusions:** As a temporary surgical wound coverage, IHSA is superior to all other dressings we have previously tried. Patients require no further wound care between surgical procedures. Patient reports of wound pain have been drastically reduced. IHSA costs significantly less than dressing changes by skilled nurses and acellular dermal matrix. It can be used in all patients, including immunosuppressed transplant patients, and can be kept at room temperature for 2 years before application.

Isolated Limb Infusion with Hyperthermia and Chemotherapy for Melanoma and other Neoplasias: Predictive Factors for Toxicity and Response

João Pedreira Duprat Neto; Ana Carolina Clemente de Mauro; Andre Sapata Molina; Kenji Nishinari; Charles Edouard Zurstrassen; Francisco César Carnevale; Odon Ferreira Costa; Francisco Aparecido Belfort; Jose Humberto Fregnani,

Background: Isolated Limb Perfusion (ILP) with chemotherapy and hyperthermia is an efficient method; however, it also is an extensive and costly procedure.

The Isolated Limb Infusion (ILI) method was described as a simpler and less invasive alternative to accompany regional administration of chemotherapy in patients with advanced melanoma and other malignant neoplasias restricted to the limb. **Patients and Method:** Patients from two institutions treated from 1998 to 2007 with extensive disease restricted to the limb (upper or lower) were included. The cohort included 32 infusions in 25 patients with melanoma with in-transit metastasis or an extensive primary lesion, one patient with squamous cell carcinoma and another with epithelioid sarcoma with no reasonable local surgical treatment option. Catheters were placed in the artery and axial vein of the affected limb, a pneumatic tourniquet was insufflated and cytotoxic agents (melphalan and actinomycin D) were infused. The blood was circulated manually, passing into a blood warmer device, maintaining hypoxia for approximately 20 to 30 minutes. **Results:** The median temperatures inside muscle and subcutaneous tissue were 37.86°C and 37.68°C, respectively. The median differences between the initial and final temperatures inside muscle and subcutaneous tissue were 1.16 and 1.12 °C, respectively. Complete response (CR) was achieved in 28.2% and partial response (PR) was achieved in 46.8% of patients. Toxicity was assessed according to the Wieberdink Limb Toxicity Scale. Weiberdink grade II toxicity was noted in 37.5% of patients, grade III toxicity was reported in 50% of patients and grade IV toxicity was observed in 12.5% of the cohort. Tumor response and toxicity were compared to a number clinical and laboratory tests. Only O₂ saturation, the difference in O₂ saturation and pO₂ were significantly related to response. Oxygen saturation was 17% for patients with partial or no response and 32.2% for complete responders ($p=0.008$). The difference between initial to final O₂ saturation was -72.7 for partial or non-responders and -52.2 for CR patients ($p=0.025$). The difference in pO₂ was found to be 15.6 for partial or non-responders and 26.4 for complete responders ($p=0.022$). Doses of melphalan and actinomycin D were related to toxicity. For melphalan, the relationship between toxicity and mean dose are as follows: Grade II - 31.1mg, Grade III - 45.7mg and Grade IV - 53.7mg ($p=0.021$). **Conclusion:** The analyzed cohort is the third largest reported in the literature and of interest because it was conducted at a center outside of Australia, which is where most reports have previously originated. Only oxygen saturation, pO₂ and the difference in oxygen saturation were significantly related to response. Furthermore, dosage of melphalan and actinomycin D was related to toxicity. ILI is a viable method with lower costs and toxicity compared to ILP. Although response

rates with ILI are lower, this is likely because only the worst cases are treated with ILI. Further study using randomized control trials are required to definitively compare ILI and ILP.

Melanoma and Melanocytes Cells can be Reprogramming in Stem Cell?

T.L.Nascimento;¹ F.Bosco;² M.L.Calió;¹M.Torquato,
;³A.T Ferreira.¹

1-Departament of Biofísica, University Federal de São Paulo,

2-Departament of Microbiology Immunology and Parasitology,
University Federal de São Paulo,

3-Departament Bioquímico University Federal de São Paulo.

During the tumoral growth some cells of cancer adopt characteristic of stem cells determining the evolution of the cancers inducing more invasiveness and more malignancy. Here we analyzed the abilities of a melanoma cell subpopulation through its properties and characteristics stem cell comparing them with other two melanoma and melanocytes lines. We believe that studying such cells we will have important tools to future therapies.

Methods: Two melanoma lines (TM1 and TM5) and one melanocyte line (Melan-a) were utilized for long periods under specific differentiation medium, containing: bFGF, EFG and LIF (20 ng/mL, Invitrogen). The cellular cycle was analyzed with propidium iodide (PI) and annexin-V by flow cytometry, (Facs Calibur BD, USA). The cellular proliferation and viability was evaluated using Neubauer chamber and MTT assay. Morphologic and phenotypic analyzes was performed by optical microscopy – (Nikon – Eclipse TS100/TS100-F, Japan). The expression of the markers of nervous system cells was analyzed, by confocal microscopy (Nikon – Eclipse TE300, Japan): CD133, Nestin, and MAP2 (dilution 1:500, Molecular Probes). The morphologic identification of the nervous system cells was analyzed with the technique of Nissl. **Results:** We observed that cells of melanoma presented little proliferation – G0 phase of the cellular cycle. Phenotype differentiation presented by these cells was similar to stem cells *in vitro*. We observe the formation of spheroids niches adherents and nonadherents and the development of embryoid bodies, behavior similar to embryonic stem cells cultures. Melanocytes cells did not present behavior

similar, since they had some morphologic changes but did not form spheroids niches and presented less or no expression of markers of cells of the nervous system.

Conclusion: Our results indicate that a subpopulation of melanoma cells under special conditions generated cells with different properties compared with original cells; adopting behavior similar of stem cells. We believe that the knowledge of the melanoma cell behavior in special mediums of culture (microenvironment) can contribute in the better understanding of the tumoral progression and it will help the development of future therapies. Financial Support: Capes

Melanoma and Metastases to Lymph Node Mesenteric - a Case Report

Paula T.Wanderson ; Bruna P.Ifanger; Juliana M Marinho; Joelma A.Mendonça ; Jonatas L.B Nunes.

Universidade Presidente Antônio Carlos – UNIPAC – Juiz de Fora

Melanoma is cancer, that are considered the most aggressive types of cancer due to its high metastatic potential. The literature about of the experience gained in the conduct of a patient with metastasis is still limited. It is known that the gastrointestinal tract, after the liver is the most frequent site of installation metastases of melanoma in the abdomen. The jejunum being the most affected seat. Currently, between the skin lesions, is expected every year an estimated 132,000 cases of melanoma in the world (Skin Cancer Statistics). In Brazil, for the year 2008, 2950 new cases were expected in men and 2970 in women. The estimated incidence for Minas Gerais (MG) was 180 cases in men and 210 in women for 100.000 inhabitants (Instituto Nacional do Câncer). Case Report: JFS, 74 years old, caucasian with a diagnosis of melanoma on skin. The initial lesion affecting the left foot plantar region and had been classified as acral lentiginous melanoma. This lesion received surgical removal. After that, it has evolved with swollen glands in the left inguinal region ulcerated and anorexia. This patient was submitted to surgery for evacuation inguinal-femoral and pelvic lymph nodes, as well as excision of lesions in mesentery that was determinants of semi-intestinal occlusion. This therapeutic approach has evolved with improvement in the general framework of the patient which is supported by the literature like as a factor of survival.

Melanoma in Children 9 Years Old

Érico Di Santis; Antonio Priante; Cesar Cardoso, Marcia Alva-renga; Samuel Mandelbaum.

University Hospital of Taubaté, Taubaté SP.

FPM, female, 9 years old, born and resident in Taubaté. First seen on April 2009, her mother told that a "mole" appeared 60 days ago and was becoming bigger. On physical examination: in the left lateral forearm, a dark brown papule, 3 mm in diameter and 3 mm high, with an erythematous halo. Absence of palpable axillary and cervical lymph nodes, no hepatosplenomegaly. Excisional biopsy with 3.5 mm punch under local anesthesia. Pathology: Superficial spreading melanoma, with vertical growth phase, infiltration (Clark level) III, thickness (Breslow) 1.4 mm, mitotic index of 3 mitoses in 10 fields of high magnification, discrete intratumoral and peritumoral lymphocytic infiltration. Absent: Angiolymphatic and perineural invasion, regression area, microscopic satellitosis. No ulceration, no associated nevus. Surgical margins coincident with neoplasia. **Exams:** LDH: 360 U/L, alkaline phosphatase 388 U/L; chest x-ray normal. Fourteen days after the result was submitted to extension of surgical margins by 2 cm, with survey for sentinel node using technetium plus dermal injection of patent blue. The sentinel lymph node was found in left axilla, with scale of over 3000 and another hypertrophic node with scale of 300. After resection of the lymph nodes the surgical bed scale lower than 200. Pathology: sentinel lymph node and adjacent node: no tumor, with reactive lymphoid hyperplasia; Skin from left side of the forearm (adjacent to surgical scar): absence of residual tumor with fibrotic scarring. The rarity of the case, with few bibliographic citations; and importance to alert physicians to think about melanoma when a small nevus shows abrupt changes.

Melanoma: Clinical and Epidemic Study of 126 Patient

Santana M F; Stolf H O; Abbade L P F; Campos E P; Marques S A.

Department of Dermatology-University of Medicine of Botucatu- Unesp

Resume: Epidemiologic Fundaments: The melanoma is one of the ten more frequent tumors in the Brazilian population. The obtaining of epidemic data is necessary so that programs of primary prevention and precocious detection are projected. Objective: clinical and epidemiologic study of the melanoma cases diagnosed in reference service. **Patients and Methods:** retrospective study of 126 patients with melanoma seen at the dermatology clinics of a tertiary hospital between 2000 and 2007. **Results:** 64 women and 62 men were studied. Six patients presented the second melanoma. The incidence peak was between 51 and 60 years (23.0%), with 26.2% below 50 years (average = 61 years). The superficial extensive type prevailed (46.0% - $p < 0.0001$). Disease duration ranged from 2 to 5 years in 49.2% or still absence of complaints (19%) related to the melanoma. Skin tumors no melanoma happened in 28.6%. The more frequent histological types were: Clark III or IV (49.2%); Breslow: 32.5% had lesion smaller than 1 mm and 36,5% larger than 1 mm. Lesions in situ were diagnosed in 12.7% of the cases and metastases in 22.2%. **Conclusion:** There was prevalence of tumors with long time of evolution and considerable portion of lesions above 1 mm of thickness, in other words, with worse prognosis, besides significant incidence below 50 anos. Therefore, it is important make public politics stand out to raise high risk individuals awareness.

Melanoma: Level of Tumor Invasion or Invasion and Impact on Prognosis

M.F.Santana; H.O Stolf ; L.P.F Abbade ; M.E.A Marques ; S.A Marques

Depto of Dermatology Faculty of Medicine of Botucatu-UNESP-Brasil

Diagnostic and Methods: The natural history of melanoma may be modified, as exhibits long-term radial growth, and in this time the chances of cure are high. The level of tumor invasion, determined by the Breslow index has high predictive power of prognosis. It is therefore the importance of early diagnosis. **Objectives:** To study the correlation between levels of invasion index. Breslow, and cases of metastatic melanoma diagnosed in a university hospital. **Patients and Methods:** Descriptive study of 87 patients in the dermatology clinics of a tertiary hospital, reference for diagnosis in the period 2000 to 2007.

Group I: invasion <1 mm, Group II: >1mm and <4 mm, Group III: > 4 mm. We studied the associations between groups and occurrence of metastasis from one to seven years of follow up. **Results:** Of 87 patients, between 23 and 89 years, 47 women. Group I: 41 patients (47.1% of cases) metastases occurred in three of them. Group II: 22 patients (25.3%) metastasis in 18.2% of cases. In group III, composed of 24 patients (27.6%), metastases were observed in 54.2% of cases. **Conclusion:** The melanoma is a potentially cancer curable, but this study shows that considerable number of patients is diagnosed when it presents advanced lesions, compromising the possibility of cure.

Melanoma of Patient Private Reference Sevice in Belo Horizonte

Alberto Wainstein; Fernanda Parreiras; Nathália Paz; Octávio Castro; Bruno Oliveira; Fernando Santos; BioCancer, ONCAD - Belo Horizonte,

Primary cutaneous melanoma corresponds to only 3% of cancers of the skin, but is responsible for more than 75% of deaths from skin cancer in the United States. Despite all efforts in trying to treat this cancer in advanced cases, none of the currently available **Methods of Treatment** (chemotherapy, radiotherapy, vaccines and biochemotherapy), seem to be able to cure or improve rates of survival notably. Most of the population does not carry out regular assessment with a dermatologist and only a small part has the capacity to perform a regular self-examination of the skin, sufficiently comprehensive, as recommended. Therefore, the hope is prevention and early diagnosis of melanoma. **Objective:** Evaluate the epidemiological aspects of primary cutaneous melanoma, taking into account sex, primary site, initial stage of the patient, levels of Clark, Breslow, the histological types and age groups most affected. **Methodology:** This was a retrospective study of 317 patients with melanoma, treated by the same surgeon in a private reference center in Belo Horizonte from May 2001 to May 2009. **Results:** 317 patients were divided in 140 males and 177 females. Melanoma was predominantly found in patients aged over 60 years (38.8%). The predominant location of the primary lesion was on the limbs (39.15%), especially in the lower limbs (23.2%). Most frequent histological type (36.12%) was the superficial spreading melanoma. Most of the patients

(20.2%) presented tumor thickness (Breslow level) smaller than 0.75 mm. However, when considering the level of Clark, there was predominance of cases with Clark III and IV, with 22.1% and 20.5% respectively. **Conclusion:** This study is important to define policy for early detection and more effective approaches. We are also examining whether there are epidemiological differences in patients with melanoma from private and public institutions. fernanda cardoso parreiras; Nathália mansur paz; Octávio de castro menezes cândido; bruno righi rodrigues de oliveira; fernando santos; alberto julius alves wainstein; Fernando Santos; Cirurgião oncológico com participação ativa nos casos de melanoma avançados

Melanoma with Unknown Primary Tumor- 12 Case Analysis

Alberto Wainstein; Raquel Cabral; Lilian Maselli; Guilherme Duarte; Fernando Santos. BioCancer, ONCAD - Belo Horizonte.

Malignant melanoma may present clinically as metastatic disease without any evidence of cutaneous primary tumor. The incidence of melanoma with unknown primary site varies from 1 to 15% of melanomas. Some hypothesis try to explain the phenomenon, including surgical removal of the primary lesion without histopathological study of the material or spontaneous regression of the primary lesion due to immunological phenomena, which may even have been stimulated by the metastasis, among other theories. **Objective:** Introduce cases of patients with unknown primary melanoma and compare survival among these patients and those with unknown primary site. **Methodology:** A retrospective analysis was performed with 262 patients under the care of the same team in the same institution, and identified 12 cases (4.8%) of patients with unknown primary from June 2001 until April 2008. Discussion: Among the 12 patients studied, 5 (41.6%) were still alive at the end of this evaluation, 7 (58.4%) had died. The main site of initial diagnosis (metastasis) were the lymph nodes 6 (50%), being the inguinal the most affected 3 (25%). The remaining involved lymph nodes were axillary 2 (16%) and periaórticos 1 (8.3%). Pulmonary site was found in 3 cases (25%). Upon confirmation of the metastatic diagnosis, the average survival rate of patients with unknown primary is comparable to that observed in patients with known primary with the same

type of metastasis. **Conclusion:** The clinical course of the primary lesion with metastasis is similar to that of metastatic lesions with unknown site. The isolated most relevant parameter to determine the clinical course and prognosis is the location of metastases.

Melanoma x Spitz Nevus: a 4 Months Newborn with 30 Mitosis S/MM² . Best Treatment?

Alberto Wainstein; Nathália Paz; Carlyle Barral; Adelanir Barroso; Flávia Bittencourt; Milhem Kansaon; Gilles Landman; Nilceo Michalany; Gil Patrus; Marcelo Salomé.

BioCancer, UFMG, FHEMIG, ONCAD -Belo Horizonte.

Objectives: Introduce a rare case of a 4 months newborn with a unique aggressive melanocyte lesion, with 2 months of evolution from a small red folliculate to a melanoma/spitz nevus. Patient had no other pigmented lesion. **Methods:** Describe the characteristics of high proliferate Spitz nevus and compare it with melanoma as though they are sometimes difficult to differentiate and the clinical conduct has a great disparity. **Results:** There is a lack of consensus about histopathology and also a terminology of the tumors that are neither typical nevus Spitz, neither malignant melanoma. Histopathological, clinical and ancillary criteria must be considerate in the final interpretation of epitheloid/spindle cell lesion. At the present, a newborn with a 3 mm diameter cutaneous lesion in the left limb, which resembled a folliculitis that later became pigmented, was biopsied. The histological study evidenced a cutaneous melanoma, Breslow 2.6 mm, Clark IV. A histology review did not discharge a Spitz nevus with 30 mitosis/mm². Also, there was a palpable lymph node in inguinal region. We performed a 1cm enlargement margin resection with sentinel lymph node biopsy (SLNB) dissection that was negative for metastasis at H & E but was positive for HMB-45, Melan-A and S100 described as normal melanocytes in the lymph node. **Conclusions:** Our standard care for melanocytes lesions with high proliferative mitosis index is to concern as a melanoma. Resection and SLNB biopsy was done with no morbidity. We consider SLNB negative for metastasis. Patient should be carefully monitored by lymph nodal ultrasound with Doppler and regular examinations for recurrence and metastasis.

Metastatic melanoma: Analysis of Patients with Long Survival

Alberto Wainstein; Gabriela Chaves; Lílían Maselli; Ana Paula Drummond-Lage; Fernando Santos
BioCancer, ONCAD - Belo Horizonte,

Melanoma has a low incidence representing 4% of the types of skin cancer with a high mortality. Metastatic melanoma has a median survival of 6 to 9 months after diagnosis and survival at 5 years occur in approximately 5%. However, there are situations in which patients survive for long periods, suggesting the heterogeneity of the disease. **Objective:** Analyze melanoma patients with metastatic disease and considerable survival longer than predicted. **Method:** In a single series of 317 patients we identified 18 patients with metastatic melanoma that survived longer than expected. **Results:** All patients underwent resection of the primary lesion. Ages ranged from 30 to 73 years. There were a total of 7 male patients. Breslow ranged from 0.64 mm to 7.2 mm. The lymph nodes (Stage IV) were the structures most affected by metastasis, and a total of 7 patients with lymph nodes involved, especially the inguinal. Five patients with pulmonary metastasis were diagnosed, in two, bone metastases. Only one patient had hepatic involvement, one had central nervous involvement and other impairment of the gastrointestinal tract. In 5 patients there were metastases in more than one organ. Among them, five were treated with chemotherapy, three received combination of therapies (chemotherapy and / or vaccine and / or radiotherapy and / or INF). The survival ranged from 18 months to 154 months, with an average of 38 months. Only is alive and has no evidence of recurrence of the disease. **Discussion:** Melanoma shows aggressive biological behavior, but in some cases, can accomplish long-term survival even in stage IV patients. Reichl et al suggests that the aggregation of therapies for different targets, increases the possibility of modulation of the tumor. Tauceri et. al shows that the excision of metastases plus adjuvant therapies increases survival of patients, regardless of the site and number of metastases. **Conclusion:** The median survival in metastatic melanoma is six to nine months. Despite this, long-term survival can be achieved through the combination of local therapy, and systemic immunomodulatory. However, we still do not really know how and how much endogenous factor could imply to fight the tumor and increase survival.

Metastatic Melanoma: in the Gastrointestinal Tract

Felice Riccardi; Humberto Matos; Ângela João; Gustavo Laporte; Tadeu Ambros

Oncology Surgery Department – Melanoma Unit/Hospital Santa Rita – Complexo Hospitalar Santa Casa de Porto Alegre

Malignant melanoma (MM) is the most common metastatic tumor of the gastrointestinal tract (GIT). Although gut involvement is found in up to 60% of autopsies of patients with melanoma, ante mortem diagnosis of metastases is made in only 4% of cases. This difference can be explained by the lack of early symptoms.

Objectives: Report a case of melanoma metastasis in the GIT. **Report:** A 57 years old, male, caucasian patient was submitted to a skin lesion resection on the right flank, in March 2007. The anatomopathological analysis (AP) revealed a malignant melanoma (superficial spreading type, Clark level III, Breslow 1 mm, no ulceration). Standard treatment was performed, showing six positive lymph nodes in the right axilla, with immunotherapy being indicated as complementary treatment. On follow-up 14 months after diagnosis, the patient begun to have colicky abdominal pain. Evaluation by imaging methods (MRI) of the skull, chest and abdomen identified solid nodular lesions in the epigastric and pelvic regions. During exploratory laparotomy, an 8cm tumor in a segment of the small intestine and nodules with 2 and 3 cm the descending colon were identified, which were completely removed. The AP showed metastases of melanoma. Six months later, there was intra-abdominal recurrence, and the patient underwent a new surgical resection (R0).

Discussion: TGI metastases in patients with melanoma are infrequently diagnosed. The treatment of choice is still surgery, regardless of intent: curative or palliative. The resection for palliation is carried out when there are symptoms such as bleeding and obstruction. The curative resection is indicated when detected disease is restricted to gut, as complete removal significantly increases the mean survival time.

Mitotic Rate as a Prognostic Factor in Patients with Thin Melanomas

Bianca Costa Soares de Sa ;¹ João Pereira Duprat Neto ;¹ Gilles Landman ;¹ José Humberto Fregnani ;¹ G. Borges Manta ¹

1-Skin Oncology, Hospital A.C. Camargo, Sao Paulo,

2-Skin Oncology Departament, Hospital A.C. Camargo, Sao

Paulo,

Objectives: Patients with thin melanomas have great chances to be cured by tumor excision. However, some have a recurrence and may die of the disease. Mitotic rate (MR) is an indicator of tumor proliferative rate and has been confirmed as an important prognostic factor in many solid tumors. Sentinel lymph node (SLN) status is an important predictor of survival in patients with melanoma. The objective was to analyze mitotic rate as a prognostic factor and predictor of SLN positivity in thin melanomas. **Methods:** Patients with diagnosis of invasive thin melanomas ($\leq 1,0\text{mm}$) between March, 1993 and February, 2008. Univariate and multivariate analyses were performed to assess factors that predict SLN positivity and survival. We analyzed the following prognostic factors: tumor thickness, age, gender, site, family history, histological classification, growth phase, ulceration, clark level, regression, mitotic rate and lymph node involvement. **Results:** Total of 327 patients, mean age at diagnosis was 48.73 years, 44% male and 56% female; 5-year and 10-year overall survival rate was 96,7 and 89.7 months, respectively. We identified risk groups using tumor thickness and mitotic rate: low risk - $< 0.75\text{mm}$ AND $\text{MR} < 4$; intermediate risk - $\geq 0.75\text{mm}$ OR $\text{MR} \geq 4$; high risk - $\geq 0.75\text{mm}$ AND $\text{MR} \geq 4$. Melanomas with $\text{MR}=0$ showed 2,9% of SLN positivity as compared with 12.8% for melanomas with $\text{MR} < 4$ and 40% for melanomas with $\text{MR} \geq 4$. **Conclusions:** Our results suggest that MR, together with tumor thickness, is an important prognostic factor in patients with thin melanomas. Besides, we found an association between number of tumor mitosis in thin melanomas and higher prevalence of SLN positivity.

Morphological Variability Difficult the Amelanotic Melanoma Diagnosis

Sandra L. M. Dinato; Fabiana L. Brasil; Marcelo M. Dinato; José Roberto P. Almeida; Ney Romiti

Centro universitário Lusíada – UNILUS.

Hospital Guilherme Álvaro – Department of Dermatology, Santos,

A particular form of melanoma is called amelanotic melanoma (AM), tumor characterized by small or no production of melanin. The amelanotic melanoma represents 2% to 8% of all cases of melanoma. Due to the lack of pigmentation, this type of melanoma is usually

difficult to diagnose, leading to higher mortality rates than those of the pigmented melanomas. In general, these malignant tumors when located in unusual areas, like acral region, are frequently less identified when compared with those of other anatomical regions (4). The incorrect or late diagnosis is associated with a statistically worse prognosis. The differential diagnosis of AM must include callus, wart, fungal disorder, keratoacanthoma, ingrown toenail, pyogenic granuloma, onychomycosis and subungual hematoma. The Dermatology Department of Guilherme Álvaro Hospital has recently had two cases of unusually located AM, described below. Case 1 : A 44 years old female was admitted on the dermatology department of the Guilherme Álvaro Hospital complaining of a tumor in the 2nd finger of the left hand. She had already been submitted to surgical excision and antibiotic treatment at another service, where she was diagnosed with pyogenic granuloma. Histopathological examination was not performed. After 6 months, she noticed the injury was getting worse, expanding from the periungual region to the digital pulp. On physical examination, there was a vegetative, ulcerated tumor, with areas of erythematous color. The periphery of the lesion was pigmented. There were no enlarged lymph nodes on examination. She denied any systemic manifestation. The patient was referred to the Oncology Department with the clinical diagnosis of amelanotic melanoma and histopathological confirmation. Case 2 A 32-year-old white female was admitted to our department with a lesion in the plantar area of the right foot. She had been treating this lesion with topical medication for a few months, believing it was a plantar wart. The clinical examination showed: presence of nodular lesions with angiomatous appearance, with a shiny, smooth and painless surface. Presence of a white circle surrounding the tumor, characteristic of the keratolytic substance usage. The patient was submitted to a total excision of the lesion with the clinical diagnosis of amelanotic melanoma, also confirmed by histopathological examination. **Result:** The two cases were previously wrongly diagnosed. After a second clinical dermatologic examination and a biopsy, the correct diagnosis of AM was confirmed. **Discussion / Conclusion:** These two cases illustrate how difficult can it be to correctly diagnose cases of AM at the acral region, particularly given the lesions morphological variability. It should be emphasized that the amelanotic melanoma is an important differential diagnosis for several skin disorders, particularly the pyogenic granuloma. It may manifest as macules, papules, plaques, with irregular, erythematous, sometimes peel simulating superficial basal cell carcinoma, actinic keratosis, Bowen's disease or inflammatory

dermatoses such as psoriasis. It can also appear as an exophytic nodule, similar to hemangioma or pyogenic granuloma. The amelanotic melanoma natural evolution is similar to the pigmented malignant melanoma. It generally occurs in areas that are exposed to the sunlight and in patients at their sixth decade or older. The symptoms are itching skin and frequent post-traumatic bleeding. The prognosis of a primary amelanotic melanoma is the same as the pigmented lesion and it is determined by the thickness of the tumor, its location, the patient's age and sex. Interestingly, the metastatic melanoma can present one or more amelanotic lesions, even when the primary tumor is pigmented. These lesions are often misdiagnosed, due to its odd clinical, presentation, and dermoscopy and histopathology technical difficulty. These lesions are rarely diagnosed at a later and more advanced stage (approximately 13 months later), which contributes to a worse prognosis. Therefore, greater attention is required on fast-growing tumors. The objective of this paper was to warn dermatologists and non-specialists about the existence of this highly aggressive disease and its diagnostic challenges. It was also, to highlight the need and importance of the histopathological examination.

Neuronal Progenitor Cell Markers in Melanocytic Tumors

Renato Bakos;¹ Tanja Maier;² Dominik Mestel;² Richard Sturm;³ Carola Berking.²

1-Servico de Dermatologia/HCPA/UFRGS Porto Alegre

2-Department of Dermatology, Ludwig-Maximilian University of Munich, Germany

3-Centre for Molecular and Cellular Biology, University of Queensland, Brisbane, Australia

Nestin is an intermediate filament expressed in proliferating neural progenitor cells and associated with multipotentiality and regenerative capability. Nestin activation was previously shown to be dependent on BRN2 and transcription factors of the SOX family in neuronal primordial cells. Nestin re-expression has also been found in melanomas and associated with tumour progression. It was recently demonstrated that nestin expression is mainly regulated by the transcription factors SOX9 and -10, but not BRN2 as previously suggested. **Aims:** the study aims to demonstrate nestin and transcription factors SOX9, SOX10 and BRN2 expression in melanocytic tumors. **Methods:** 57 primary

melanomas, 21 metastases and 26 melanocytic nevi were examined by immunohistochemistry for protein expression of SOX9, SOX10, BRN2 and nestin. Cases were evaluated for intensity (mild, intermediate and strong) and percentage of positive cells. We looked also for protein co-expression and correlated them with clinical parameters. Chi-square was used for statistical analysis and a $p < 0,05$ was considered significant. **Results:** SOX9 was expressed in 75-80% of primary and metastatic melanomas, while SOX10 was found in 43-50%. Nestin was expressed in 56-57% and BRN2 in 78% and 53% of primary and metastatic melanomas. SOX9 and SOX10 were also detected in melanocytic nevi in 73% and 31%, respectively, however, with much lower staining intensity than in melanomas. Nestin was present in 23% and BRN2 in 50% of the analyzed nevi. Significant co-expression of nestin and SOX10 was found in primary melanoma confirming previous *in vitro* data. A correlation analysis with clinicopathological data revealed that nestin and SOX9 were significantly associated with the presence of ulceration in primary tumors. **Conclusion:** SOX9 and SOX10 are highly expressed in melanoma tissues and are activators of nestin expression. The association with ulceration suggests that SOX transcription factors may be negative prognostic markers in melanoma.

Novel Therapeutic Inhibitors Targeting Akt3 Signaling In Melanoma

Rogério I. Neves, MD, PhD; Arati Sharma, PhD; Mark Kester, PhD; Arun K. Sharma, PhD; Shantu Amin, PhD; Gavin P. Robertson, PhD.

Penn State Hershey Cancer Institute

Malignant melanoma is an aggressive disease capable of quickly spreading around the body and becoming resistant to current therapies. Even though one American dies of melanoma every hour, there are no effective long-term treatments for patients' suffering from advanced-disease. Development of therapies has been hindered due to lack of identification of melanoma causing genes responsible for the vast majority of melanomas and treatments designed to inhibit these cancer causing genes. Recently, we identified a gene called Akt3 that has abnormally high activity in 70% of metastatic melanomas compared to normal melanocytes. Since Akt3 is one of relatively few proteins identified that is unusually active in a large proportion of melanomas,

it is a potentially important therapeutic target. We have also shown that targeting Akt3 can reduce the tumor forming ability of melanoma cells. This occurs by altering apoptosis. However, melanoma cells have figured out a way to survive despite apoptosis signals telling them to die; they do this by increasing the amount of Akt3 activity. This action enables them to survive and resist to chemotherapy treatment. The objective of this project is to develop drugs that would decrease the abnormally high Akt3 activity occurring in melanomas. To accomplish this objective we have identified a naturally occurring product found in green leafy vegetables that can reduce Akt3 activity in melanomas. Furthermore, we have modified the chemical structure to make the compound even more effective at killing melanoma cells. In this project, we are examining how effective the compound is at inhibiting melanoma tumor development as well as metastasis. Thus, the agent we have developed is novel and inhibits abnormal Akt3 activity in melanomas. Selenium containing ITC reduces cellular proliferation and kills melanoma cells in culture. ISC-4 and ISC-6 are more potent than their corresponding isothiocyanates in reducing melanoma tumor development and are non-toxic. Preliminary studies show that it is effective at retarding melanoma development and has minimal toxicity. Targeted therapies that inhibit the activity of cancer causing genes hold great promise as an effective melanoma therapy.

Phosphoetanolamine Synthetic Induced Apoptosis and Arrest in Cell Cycle Phases in Melanoma

F.A. Kleber;¹ R. Azevedo;¹ F. Marques;² Radin. A.;² Chierice, G.;³ Maria, D.A.¹

1- Biochemistry and Biophysics Lab., Instituto Butantan;

2- Nuclear Medicine Center, Faculty of Medicine, USP

3- Technology of Polymers Lab., Analytical Chemistry, USP / São Carlos.

Phosphoetanolamine amine is precursors of phosphatidylcholine and fosfatidiletanolamina. Are phospholipids that make up the mitochondrial membrane and are responsible for maintaining the potential Deltapsi-m, involved in signaling pathways and cell death. In this study the effect antitumorais *in vitro* and *in vivo* and Phosphoetanolamine Synthetic (PHO-S) in B16F10 melanoma. **Materials and Methods:** The cytotoxic activity of PHO-S was tested *in vitro* in murine

and human tumor lines (Skme-28, Mel-85; Mewo and B16F10) by MTT colorimetric method. In the model of implantation of the tumor cells were used 40 mice of strain C57BL-6J receiving 5×10^4 cells B16F10e after 4 days treatment with (0.0117 and 0.0468 μM) from PHO-S, the route (ip). The tumor volume was evaluated by scintigraphic analysis 37 MBq (1 mCi) of radioactive complex $[[^{99\text{m}}\text{Tc}] \text{ (V) (DMSA) } 2]$, number of metastases. After removal of the tumor and metastasis internal dorsal part of the lesions were used for histological analysis, and part to determine the phases of the cell cycle (apoptosis, G0/G1, S and G2 / M), by flow cytometry. **Results:** The PHO-S showed selective cytotoxicity with IC50% inhibitory concentration for cells of melanoma Skme-28 0.20mg/mL; 1.82mg/mL of Mel-85; Mewo of 2.39mg/mL and the murine melanoma B16F10 of 1.44mg / mL. Treatment in animals bearing a dorsal melanoma of PHO-S induced significant ($p = 0.0001$) reduction in tumor burden ($2.9 \pm 1.4 \text{ mm}^3$), compared to the control group ($13.8 \pm 6.6 \text{ mm}^3$), inhibiting the number of internal metastases. The analysis of the phases of the cell cycle, induces PHO-S increase the proportion of cells in apoptosis in the concentration of 0.0117 μM ($17.5\% \pm 2.3$), at a dose of 0.0468 μM decreased the proportion of quiescent cells (G0/G1) ($12.7\% \pm 4.06$). The ability of synthesis (S phase and G2 / M) decreased significantly ($P < 0.001$) in the groups treated with PHO-S. As histological analysis of tumors treated with FOS-S showed areas of necrosis, limited cell mass and reduction of irrigation around the dorsal tumor. **Conclusions:** The PHO-S reduced volume of dorsal tumors, inhibition of tumor spread, and proliferative capacity. During the cell cycle by flow cytometry of the treated tumors induced PHO-S “arrest” in the G0/G1 phase, non-proliferating and increasing the population of cells killed. There were no side effects during treatment with PHO-S usually found in such conditions as anemia, bleeding and wasting. Financial Support: FAPESP

Photodynamic Therapy Using an Alternative Light Source and Methylene Blue Brings New Perspectives for Melanoma Treatment

Francisco Macedo Paschoal; Marcio Wagner; Eloah Rabello Suarez, João Paulo Tardivo, Carlos D’Aparecida

Santos Machado Filho; Mariana, Fátima Muaccad Gama, Maria Aparecida da Silva Pinhal

Departamentos de Dermatologia e Bioquímica da FMABC, Sto André, SP.

Melanoma is a very aggressive tumor and although radiation therapy, chemotherapy or immunotherapy can prolong the life expectancy of some patients these treatments often fail to completely remove the cancer cells. Photodynamic therapy (PDT) is a technique which uses drugs called photosensitizers that are activated by light. The sensitizer absorbs energy from light, and then transfers to molecular oxygen to create an activated form called singlet oxygen that can cause tissue damage. PDT has been tested extensively for skin tumors and is particularly effective in basal cell carcinoma. Extensive chemical and biological research has been carried to identify new photosensitizers. The difficulty in achieving good light excitation of these sensitizers, concerning the aggressiveness of the disease, hinders the development of PDT application for treating melanomas. Methylene Blue (MB) is a cheap and nontoxic phenothiazine dye that has intense and broad-band red light absorption, large photodynamic efficiency, and an important advantage compared with other compounds because it has a high affinity for melanin, therefore, accumulates preferentially in melanoma cells and was chosen to be used in our studies. The objective of this study is to test the low cost portable PDT device RL50® that consists in a halogen lamp for melanoma treatment using an animal model. The results demonstrated that 2 sections of PDT using MB promoted 99% tumor volume decreasing in treated mice compared with non treated group ($P = 0.021$). Tumor weight was also evaluated and a significant reduction of 75% could be seen in the MBPDT compared with non treated mice ($P = 0.006$). Immunohistochemistry assay confirms cell proliferation inhibition in mice tissues treated with MBPDT compared with non treated group. The combination of MB and RL50® provides a new PDT protocol that is inexpensive, safe and efficient.

Pigmented Actinic Keratosis Simulating Lentigo Maligna

Beatriz Kakazu; Neusa Valente; Fabio Arakaki

Institution: Hospital do Servidor Público Estadual de São Paulo

Dermoscopy is a complementary examination that uses pre-determined patterns images and helps in the clinic differentiation of melanocytic and non-melanocytic pigmented dermatological lesions, representing an important step and value to the premature diagnosis of malign melanoma. There are situations however that this differentiation represents a diagnostic challenge, in which is indispensable doing a histopathologic examination to conclude the diagnosis. We will report the study case of an 89 year-old male patient that presented a long patch irregularly pigmented with tanned and black areas on his nose. In addition to this, the dermathoscopic examination presented suggestive characteristic of lentigo maligna melanoma. After doing two incisional biopsies it proved to refer to pigmented actinic keratosis

Pigmented Epithelioid Melanocytoma

Eduardo Miranda Brandão; Daniela Takano; Paulo Brandão; Marcel Pinto; Vanessa da Silva

Clínica UNIONCO; Unidade de Patologia; Escola Pernambucana de Medicina FBV/IMIP; Faculdade de Ciências Médica – UPE.

Pigmented epithelioid melanocytoma (PEM) is a low-grade, potentially metastatic melanocytic tumor previously denominated “animal” melanoma or Carney’s epithelioid blue nevus. Case report: MRPD, 6 years old, Caucasian, with asymmetrical, heterochromic pigmented lesion of the scalp in the right parietal region. The excision product exhibited dermal proliferation of intensely pigmented epithelioid melanocytes, with pleomorphic nuclei and prominent nucleolus. A diagnosis of PEM was made. Enlargement of the parietal resection and lymphatic mapping with a study of the sentinel lymph node were performed. Two lymph nodes were detected in the homolateral intraparotid region and one in the homolateral cervical region at level 2. The lymph node exam (GBM protocol) revealed multiple micrometastases in one of the intraparotid lymph nodes. At the time, another atypical lesion was detected, which the biopsy proved to be another PEM. Cervical lymph node ultrasound and CT of the thorax and abdomen were normal. Due to the family context, the patient was not submitted to complementation of the treatment. After 16 months, the patient has no evidence of local, lymph nodal or systemic metastasis/recurrence. The patient still

exhibited diverse lentigo lesions on the face as well as in the conjunctive and oral mucosa. Considering the possibility of an association with the Carney complex, the patient was sent for endocrine and heart exams. **Discussion:** The term PEM was suggested by Mihm and Carney in 2004 to denominate a type of melanocytic tumor that shared findings with conditions previously described as “animal” melanoma or Carney’s epithelioid blue nevus. In a series of 40 cases, of which 26 were submitted to lymph node examination, 46% exhibited metastases, but no patient died from the disease. PEM is a low-grade melanoma variant, with a high risk for ganglion metastasis, but an indolent clinical course. PEM and Carney epithelioid blue nevus are histologically indistinguishable and both exhibit expression loss of the protein PRKAR1A on the molecular level (Stratakis, 2007). The diagnosis of PEM should suggest an investigation of the Carney complex, which mainly affects the skin, heart and adrenal glands. The high rate of lymph node metastases justifies routinely performing lymphatic mapping.

Polymorphisms in Nucleotide Excision Repair Genes Modify the Risk of Cutaneous Melanoma

Guilherme Francisco;¹ Sonia Regina Pereira de Sousa;² Olinda do Carmo Luiz;³ José Eluf Neto;² Roger Chammas;^{1,4}

1-Laboratório de Oncologia Experimental LIM-24, Departamento de Radiologia, Faculdade de Medicina da Universidade de São Paulo

2-Departamento de Medicina Preventiva, Faculdade de Medicina da Universidade de São Paulo

3-Faculdade de Medicina do ABC, FMABC, São Paulo, Brasil.

4- Hospital A C Camargo; Hospital das Clínicas- FMUSP- Serviço de Dermatologia

Nucleotide excision repair (NER) constitutes one of the DNA repair pathways involved with repair of DNA lesions caused by ultraviolet light (UV) exposure, a causative agent of skin cancers, including melanoma. The aim of this work was verify whether polymorphisms in genes involved in NER could modify the susceptibility to melanoma development. A case-control study was designed to assess the frequency of known polymorphisms of *XPA*, *XPG*, *XPC*, *ERCC1* and *OGG1* by PCR-RFLP. Here we report on the results obtained from the analysis of 202 melanoma cases and 210 controls.

Increased risk for melanoma was estimated in patients whose *XPC* genotype was homozygous for the presence of (a) poly-AT region in intron 9 (odds ratio [OR] 3.30; 95% interval confidence [95%IC] 1.77–6.14); (b) A/A in splicing site of intron 11 (OR 3.07; IC 95% 1.64–5.73); and (c) Gln/Gln 939 codon (OR 2.88; IC 95% 1.52–5.46). Analysis of these three polymorphisms in *XPC* also showed a dependent inheritance pattern, suggesting strong linkage disequilibrium. The genotype His/His in codon 1104 of *XPG* showed a protective effect (OR 0.35; IC 95% 0.15–0.81). No association was found regarding the others polymorphisms (–4 G/A *XPA*; Asn118Asn *ERCC1* and OGG1 Ser326Cys). Thus polymorphisms in selected NER genes associate with increase melanoma risk. Financial Support: FAPESP and CNPq.

Pre-Auricular Melanoma, Incisional Biopsy and Cervical Lymphadenectomy

Leonardo Kruschewsky; C.Ribeiro; Araujo, I; Mascarenhas, L; Torres, E.

Hospital Aristides Maltez, Salvador, Bahia. IV.

Melanoma of head and neck follows specific criteria for cervical lymphadenectomy. The incisional biopsy constitutes trap for staging. History, Physical Examination and Complementary Examinations: PAM, 74yo, white male, with right, pre-auricular pigmented lesion 4 months ago, with incisional biopsy positive for malignant melanoma, Clark IV, Breslow 1,8mm. Coronary artery bypass 6 months ago. Physical exam: Blackish, violet lesion, of irregular edges, in right pre-auricular region, of 2.0 cm X 2.5 cm. Neck without nodules, with pre-surgical exams and thoracic Rx ok. T2aNoMx, EC IIA. **Treatment and Results:** Considered excisional biopsy for correct oncologic staging and therapeutical decision. In the surgical room, detected palpable parotid lymph nodes, and so, in agreement with the patient, decided to change to therapeutical procedure. Cervical lymphadenectomy levels I to V, parotidectomy with preservation of the facial nerve, wide lesion resection with safety margins of 2.0 cm and rotation flap. Histology: malignant nodular melanoma, ulcerated, free edges, Breslow 10 mm, Clark V, 3 positive intraparotid lymph nodes in 11, T4bN2BMx, EC IIIC. **Argument and Justification:** Incisional biopsy for suspicious melanoma must be avoided therefore constitutes trap for the staging.

It only has indication when suspicious lesion presents risk of mutilation for the patient in if making the excisional biopsy. Facial melanoma indication for cervical lymphadenectomy is in the dependence of the Breslow and presence or not of metastatic cervical nodule. The controversial one is the N0 neck, with Breslow larger than 1.7mm. The ones that always do lymphadenectomy value the rich relatively random and bilateral cervical lymph node draining. The ones that use sentinel lymph node value the immunologic aspect of the illness, the insurance effectiveness of the technique to confirm metastases and the mutilations associates to the procedure.

Prevalence and Risk Factors of Lymphedema After Surgical Treatment For the Cutaneous Melanoma

Larissa Campanholi; João Duprat; José Fregnani

Departments of Cutaneous Oncology and Physical Therapy, Hospital A.C. Camargo, São Paulo.

The knowledge of the prevalence of lymphedema, complications after lymphadenectomy and risk factors for lymphedema are useful in the implementation of preventive measures. **Aims:** evaluating the prevalence of lymphedema in patients undergoing radical lymphadenectomy after melanoma, showing morbidity related to the procedure and the risk factors, in addition to building a model to assess the likelihood of lymphedema. **Patients and Methods:** we evaluated 84 patients subjected to axillary, groin or inguinal-iliac lymph node dissection, operated from 1990 to 2008 and having at least six months interval from the surgery. Patients were underwent an evaluation consisting of measuring the volume of the member through perimetry and data were collected from medical records. **Results:** The prevalence of lymphedema in the postoperative period was 17.5% for upper limbs and 59.1% for lower limbs (42.9% in inguinal lymphadenectomy and 73.9% in inguinal-iliac). Surgical scar dehiscence and infection were more prevalent in inguinal or inguinal-iliac lymphadenectomies. Cellulite and seroma are complications that showed little difference between the groups. The skin insensitivity had high prevalence in the three types of lymphadenectomy. We got like risk factors for lymphedema: reconstruction with graft ($p=0.013$), Breslow > 4 mm ($p=0.029$), inguinal-iliac lymphadenectomy ($p=0.037$) and surgical

site infection ($p=0.036$). Points were assigned to these factors as the coefficient of regression: infection (1 point), inguinal-iliac lymphadenectomy and Breslow $> 4\text{mm}$ and reconstruction with graft. The mathematical model able to predict the risk of limb lymphedema after lymphadenectomy was based on the risk groups defined by a score: low risk = 0 point (8.3% chance of developing lymphedema), intermediate risk = 1-2 points (26.8%), high risk = 3 points (52.9%) and very high risk = 4 or more points (88.9%). **Conclusion:** The inguinal and inguinal-iliac lymphadenectomies showed higher prevalence of lymphedema than on axillary. In addition to lymphedema, skin insensitivity, infection and scar dehiscence were the most significant morbidity. The thickness of the melanoma $> 4\text{mm}$, reconstruction with graft, iliac-inguinal lymphadenectomy and surgical site infection are risk factors for lymphedema and the association of these factors increased the chance of developing lymphedema.

Reed's Nevus – Dermatoscopic Transitional Patterns.

Rosana Ramos; Lucia Ribeiro; Adriana Amorim; Mayra Rocha; Adolpho Araripe; Ângela Puccini; Ângela Souza.

Serviço de Dermatologia - HUAP, Universidade Federal Fluminense, Niterói,

Reed's nevus was described in 1975 as a pigmented variation of Spitz's nevus, more common in young women, mostly in lower limbs, independent of age. Its similarity with cutaneous melanoma cannot be excluded only by clinical examination. Dermatoscopy is very useful and three different patterns have been described. History and clinical findings: A 23-years-old black domestic servant woman born in Minas Gerais state and living in Niterói in the state of Rio de Janeiro (HUAP: 530053) had a dark lesion in the right forearm for one year, not showing any symptoms but growing constantly. She does not have comorbidities or family history of cutaneous cancer. Clinical examination showed a black papule, irregular periphery, approximately 1.2 cm, painless, on the side of the right forearm. Additional Exams: Dermatoscopy: irregular distribution, sometimes showing streaks on a grey background and, other times, some globular structures and pseudopods. histopathology: Reed's nevus. **Treatment and Results:**

Total exeresis. late post surgical follow-up without problems. **Discussion:** Pigmented variation of Spitz nevus, Reed nevus shows some problems in the clinical diagnostic as well as in the histopathology. Dermatoscopy is an important tool and has improved accuracy up to 93 percent, but it doesn't exclude exeresis. Growing lesions in non-common areas require surgery. Dermatoscopic patterns show more frequently globular and starburst types but, rarely, the atypical form. Follow up dermatoscopic works show a developing pattern, beginning as globular and finishing as starburst. Rengniano established starburst pattern for Reed nevus. In our case, we find both patterns in one lesion, suggesting an evolution as described in the literature. The histopathology supports a definitive diagnostic. **Justification:** Dermatoscopic pattern's evolution of the Spitz nevus pigmented/Reed found in a lesion of unusual location. Tentative of dermatoscopic-histopathological correlation.

Seborrheic Keratosis: Clinical, Dermoscopic and Histopathologic Features

Flávia Bittencourt, Ana Carolina Viana, Maria Luiza de Freitas, Marcelo Salomé, Bernardo Gontijo

Pigmented Skin Lesion Clinic, Department of Dermatology/ Federal University of Minas Gerais Private practice. Belo Horizonte,

Background: Seborrheic keratosis is a common benign ubiquitous skin tumor that increases in number with age. Most people will develop at least one of these lesions along their lives. Sites of predilection include trunk, head and neck. Clinical presentation is widely heterogeneous and seborrheic keratosis may mimic other tumors, including melanoma. The purpose of this study was to describe and correlate the clinical, dermoscopic and histopathologic features. **Patients and Methods:** ninety-eight histopathologically-proven seborrheic keratoses from 80 patients were evaluated through dermoscopy. Lesions were removed only upon patient's request or when clinical diagnosis was doubtful. **Results:** eighty-seven pigmented and 11 non-pigmented lesions from 41 males and 39 females were assessed. Six dermoscopic patterns were recorded: comedolike or pseudofollicular openings (36.7%), comedolike openings and milialike cysts (24.5%), fissures (16.3%), keratosis (10.2%), milialike cysts (7.1%), telangiectasias (4.1%) and moth-eaten borders (1%). Five distinct histologic types

of seborrheic keratosis were found: acanthotic (61.2%), hyperkeratotic (17.3%), acanthotic and hyperkeratotic (4.1%), irritated (3.1%) and adenoid (1%). In 13.3% of the cases there was no mention to the histologic types. Clonal and melanoacanthoma variants were not detected in our sample. **Discussion/Conclusion:** the trunk was the most affected area and the pigmented type of seborrheic keratosis predominated. Dermoscopically, comedolike openings alone or in association with milialike cysts prevailed, concordantly to pertinent literature. Acanthotic, followed by hyperkeratotic type was the most frequent histologic finding. The former, recognized as the most common variant in scientific reports, was largely associated with comedolike openings and/or milialike cysts and fissures. Hyperkeratotic type correlated with fissures. Moth-eaten borders and the jelly sign are usually encountered in flat seborrheic keratosis. Flat lesions are rarely biopsied, which explains their absence in this study.

Sensibilization of Melanoma Cell Lines to Cisplatin Induced Cell death by Tunicamycin Treatment, an N-Glycolization Inhibitor That Results in Endoplasmic Reticulum Stress

Oliveira, L.M.D.;^{1,2} Saito R.F.;^{1,2} Otake A.H.;¹ Chammas R.¹

1-Faculdade de Medicina da USP - Laboratório de Oncologia Experimental;

2- Hospital A.C. Camargo.

The incidence of malignant melanoma has increased in the last years and the poor response to the existing therapies motivates the search for new therapeutic strategies. Previous data from our group indicates that both human melanoma progression and chemoresistance are associated with cellular adaptation to oxidative stress. Murine tumorigenic cell lines (TM1 and TM5) obtained in our group through sequential cycles of forced anchorage impediment of a not tumorigenic cell line (melan-a), are in a pro-oxidative stage and show an increase of tri- and tetra-chains of N-glycans. The pro-oxidative stage and the inhibition of N-glycolization are associated with endoplasmic reticulum (ER) stress. To better understand this phenomenon, cell lines of

human metastatic melanoma (LB373 and SKmel37) and murine cell lines of the tumoral progression model established by our group (melan-a, TM1 and TM5), had been treated with tunicamycin, an antibiotic that inhibits N-glycolization and induces ER stress. All the human and murine cell lines had tunicamycin induced cell death. Surpassing the basal levels of oxidative stress present at the tumorigenic may favor their cellular death. To evaluate this cell death induction, a treatment with tunicamycin and cisplatin was performed in the attempt to sensitize the cells through the induction of ER stress. It was observed in human melanoma cell lines an additive effect in the cellular death with the combination of these treatments, as well as for melan-a. However, the tumorigenic murine cells demonstrated higher sensibility to tunicamycin treatment, and the addition of cisplatin did not increase cell death; possibly demonstrating an interference between the induced death pathways of cisplatin and tunicamycin. The study favors to understand molecular aspects of the adaptation process and chemoresistance in melanomas and suggests therapeutic strategy of sensitization through the induction of ER stress.

Sentinel Lymph Node: A Reference Center's Case Series Analysis

Felice Riccardi; Humberto Matos; Ângela João; Rafael Seitenfus; Tadeu Ambros

Oncology Surgery Department – Melanoma Unit/Hospital Santa Rita – Complexo Hospitalar Santa Casa de Porto Alegre

Malignant melanoma (MM) is the most aggressive skin cancer. The histological evaluation of the primary lesion provides information to indicate further examination of regional lymph nodes. The technique chosen for patients with clinically negative lymph nodes is the detection of sentinel lymph node (SLN). **Objectives:** Describe the epidemiological characteristics of a sample of patients who underwent evaluation of sentinel lymph node. **Methods:** From August 2000 to March 2009, 204 patients with cutaneous melanoma underwent SLN detection, by a single oncology surgeon, in a reference center located in Porto Alegre – RS. All patients fulfilled the histological criteria required for this method and had no clinically positive lymph nodes on physical examination. The technique implemented included preoperative lymphoscintigraphy and transoperative gamma probe mapping, after intradermal injection of patent blue V dye. The SLN removed was fixed in formalin and

submitted to histologic evaluation with hematoxylin and eosin (HE), which if negative, indicated the need to perform immunohistochemistry to verify the presence of micrometastasis. **Results:** Out of 204 patients, 113 (55.4%) were women and ages ranged from 20 to 80 years with an average of 52.6 years. The primary sites were: 23 (11.4%) acral, 36 (17.7%) upper limb, 14 (6.9%) head and neck, 37 (18.2%) lower limb and 94 (46.3%) trunk. Ulceration was detected in 54 (26.5%) cases and regression in 97 (47.5%) patients. Regarding the Clark classification, there was a predominance of levels III and IV, with a total of 61 (29.9%) and 105 (51.4%) patients, respectively. In relation to Breslow, there was a predominance of thickness ranging from 1.01 to 2mm, with a total of 69 (33.8%) cases, followed by a range of 2.01 to 4.00mm (49 cases, 24%) and ≤ 1.00 mm (49 cases, 24%). On verification by HE, 173 (84.8%) cases were negative, being necessary the immunohistochemical evaluation, which revealed positivity in 14 (8.1%) of them. None of the subjects with Breslow <1 mm showed positive SLN. **Conclusion:** This study shows that the epidemiological aspects, the histological features of primary tumor and the rate of positivity are consistent with those found in the literature.

Sentinel Lymph Node Biopsy in Cutaneous Melanoma: Ten Years Experience

Juliana S Tartuci; Andrea F Oliveira; Taila Y S Machado;
Ivan D A O Satos; Lydia M Ferreira.
Federal University of São Paulo – UNIFESP/EPM – São Paulo

A sentinel lymph node (SL) is the first lymph node to where the primary tumor drains. Sentinel lymph node biopsy for patients with Breslow thicker than 1.0 mm or despite thinner than 1.0mm, displays other histopathological risk features, such as: Clark IV or V and ulceration. Sentinel lymph node biopsy results define which patients are the proper candidates for complete lymphadenectomy, sparing from it the individuals with unaffected sentinel lymph nodes. The objective of this study was to evaluate practical rules for sentinel lymph node biopsy for melanoma and discuss the indications and outcomes of 118 patients. **Methods:** The study group was composed of 118 patients who underwent sentinel lymph node biopsy from 1999 to 2008. Patient selection was consecutive and non-randomized and

they were prospectively followed up. All patients with tumor thickness equal to or greater than 0.76 mm and with no clinical signs of lymph node metastases were included in the study. The following data were assessed: age, sex, information on the primary tumor (localization, histopathological type, ulceration, Breslow and Clark), and histopathological diagnosis of SL, time of follow-up, recurrence and current patient status. **Results:** patients were followed up for a mean period of 46 months. Their mean age was 53.9 years, ranging from 12 to 85 years. Forty seven patients were male (39.9%) and 71, female (60.1%). Sentinel lymph node was positive in 31.3% and negative in 68.7%. It was found that the thicker the tumor, the greater the incidence of positive sentinel lymph nodes. In the group of patients with positive sentinel lymph nodes, recurrence occurred in 78.6%, and in those with negative sentinel lymph nodes, in 21.4%, what points out to the association of tumor recurrence and positive sentinel lymph nodes. The melanoma-specific mortality rate in the negative sentinel node group was 9.8% (8 of 81 patients) and 27.0% (10 of 37) in the group with nodal metastases. **Discussion/Conclusion:** Rates of SLN positivity have been reported between 12% and 27% in the literature. Until recently, SL biopsy was only considered as a staging gold-standard because there were no data proving it would increase patient survival. Morton demonstrated that survival of the group of patients with intermediate thickness tumors and positive SL biopsy might be increased by selective lymphadenectomy. Of the 118 patients studied, 69 had lesions of intermediate thickness, 17 of whom had positive SL. These patients were granted with the possibility of extended survival by selective lymphadenectomy. After that, tumor thickness may be used as an indicator of expected lymph node metastases, and similar results were found in the present study.

Sentinel Lymph Node Biopsy with Local Anesthesia in 108 Patients with Melanoma-Clinical Experience

Alberto Wainstein; Natalia Paz; Fernanda Parreiras;
Carlyle Barral; Adelanir Barroso; Bruno Oliveira;
Fernando Santos.

Bio Cancer, UFMG, FHEMIG, ONCAD – Belo Horizonte,

Sentinel lymph node biopsy (SLB) is a procedure to accurately evaluate the presence of tumor cells in

regional lymph nodes with a minimally invasive approach with the possibility of using local anesthesia. **Objective:** Analyze the data of melanoma patients submitted to SLB with local anesthesia and establish the indications and benefits of this technique. **Methodology:** We performed a retrospective analysis of 308 patients with primary cutaneous melanoma treated by the same surgeon in a reference private center in Belo Horizonte, in the period of June 1998 to May 2009, within 108 submitted undergone BLS using as local anesthetics lidocaine 2% and Bupivacaine Hydrochloride 0.5% solution 1:1, sedation and hypnotic under the anesthesiologist care. No patient needed mechanical ventilation help. **Results:** The study group was composed of 49 males and 59 females. Melanoma was predominantly found in patients aged between 40 and 60 years (39.5%). Superficial spreading melanoma was found in the majority of patients (39.5%). Sentinel lymph node biopsy was positive in 13 (15.1%) patients and negative in 73 (84.9%). We found no increase in morbidity in the procedure performed with local anesthesia compared to the standard procedure using general anesthesia. Patients tolerated well the procedure with no major complaint. All patients were discharged at the same day with average hospital stay of 5 hours. **Conclusion:** The sentinel lymph node biopsy is an opportunity to detect regional occult metastases in patients with melanoma, with low morbidity, sparing some of unnecessary radical lymph node resections. It can be performed using local anesthesia that can help to reduce the complications of the procedure. The lymph node dissection was avoided in 84.9% of the 108 patients studied, without prejudice to the therapeutic planning of these patients.

Sinergism Between Electric/Magnetic Fields and Paclitaxel in B16-F10 murine Melanoma Cells

Rafael Andrette; Fernanda Faião-Flores; Durvanei Maria; João Arruda-Neto.

Instituto de Física – USP, São Paulo; Laboratório de Bioquímica e Biofísica do Instituto Butantan, São Paulo

Electric activity in cells is present in many essential biological processes. In fact, cells are also composed by ions, electric dipole molecules and organelles, which therefore respond to exogenous electric and magnetic static fields. In this sense, the movement of cellular components as

molecules could be reoriented all along the force lines of these fields. The action of the chemotherapeutic paclitaxel breaks the stability of the cytoskeleton. Thus, electric and magnetic fields could be an additional stressing factor during mitosis, since they can inhibit tumor cells growth by means of a spatial reorientation of microtubules along the force lines. **Material and Methods:** Cells of the strain B16F10 melanoma and normal murine fibroblasts were cultivated in culture medium (RPMI-1640 supplemented with 10% of bovine fetal serum and antibiotics). Twenty four hours after adhesion and confluence in 96 wells cultivation dishes, the cells were treated with different concentrations (0.5; 1.0 and 2 mg/mL) of paclitaxel and exposed to a 750 V/cm electric field and to a 1 KGauss magnetic field, both by 24 hours. Inhibition of cellular growth and cytotoxicity were evaluated by the MTT test. **Results and discussion:** It was observed that the electric and magnetic fields didn't interfere with the growth of fibroblasts. For B16F10 cells the electric field was also ineffective, but with the magnetic field we observed a expressive and substantial reduction of the cell viability, averaging to $(22.0 \pm 12.9) \%$ at a paclitaxel concentration of 2mg/mL. In natural microenvironment, normal cells inhibit their growth and trigger the apoptosis process after some stress level. It would be possible that a combination of paclitaxel and magnetic field would effectively work only in those cells ignoring both the apoptotic process and growing inhibition signaling, as it would happen in tumor cells. It should be pointed out that the intensity of an electric field is reduced by the state of charge in plasmatic membranes. In this sense, a magnetic field would be nearly unchanged by these membrane characteristics, and therefore would help paclitaxel in its inhibition effect. Our research suggests that a combination of a magnetic field and a chemotherapeutic treatment is quite promising, but it would be necessary further studies to quantify these findings. Financial support: CNEN (Comissão Nacional de Energia Nuclear)

Subcellular Localization of Prohibitin in Cisplatin-Treated Human Melanoma Cells

Tharcísio Tortelli Jr; Andréia Hanada Otake; Natália Schwarz; Roger Chammas

Faculdade de Medicina da Universidade de São Paulo

Melanoma incidence is increasing worldwide and represents a clinical challenge, as its treatment outcome is still poor. A possible cause to the failure of melanoma treatment is the development of chemoresistance, whose molecular bases are still poorly understood. Our laboratory conducted a proteomic approach to identify differences in protein expression or accumulation using cisplatin in a human melanoma cell line. Prohibitin (PHB), a mitochondrial chaperone and an E2F inhibitor, was among the molecules which accumulated upon cisplatin treatment. **Objectives:** Here, we have investigated prohibitin accumulation and subcellular compartmentalization in cisplatin-induced cell death in human metastatic melanoma cell lines (Mel 85, SKMel37 and LB373). **Results and Methods:** All of the human metastatic melanoma cell lines were sensitized upon cisplatin-treatment for 24h, as seen by FACS analysis. Prohibitin was overexpressed upon cisplatin treatment in all of these cell lines, as seen by western blot. We also showed a direct correlation between PHB overexpression and resistance to cisplatin-induced cell death. PHB was found in the cytoplasm, associated to mitochondria, and within nuclear compartments as seen by confocal microscopy. Prohibitin knock-down by siRNA has sensitized cells even in the absence of cisplatin treatment. **Conclusions:** Our data suggest that Prohibitin may be involved in melanoma resistance, not only for its overexpression, but also due to its nuclear compartmentalization. Nuclear reorganization, as evidenced by prohibitin compartmentalization, accompanies the cellular response to cisplatin towards survival. Supported by FAPESP and CNPq.

Surgical Treatment of Palpebral Lentigo Maligna Melanoma with Conjunctival Extension: Case Report

Priscilla Pereira; Sandra Romero; Adriana Mariano; André Domingues, Carlos Chirano
Fundação Alfredo da Matta (FUAM), Manaus

Melanomas are rare malign neoplasms which derive from melanocytes skin is the most common site and periocular melanomas are relatively rare, corresponding to less than 1% of all palpebral cancers. A female 80 year old patient, with a dark lesion in the inferior left palpebra for 2 years. There was growing in the last couple of months. At exam, a brownish blotch, with darkened areas plain and asymmetrical, measuring 1.5 x 1.5 cm, involving ipsilateral

tarsal conjunctiva. Punch biopsy revealed lentigo maligna melanoma in situ. The lesion was fully resected in a single step procedure with 5 mm margins. the tarsal conjunctiva was also resected. The wound was reconstructed with an inferior palpebral advancement flap together with a right auricular cartilage graft. there were no post-surgical complications and the patient showed no ectropium and had good stetical and functional results. With a 6 month follow-up she remains disease-free. Palpebral melanoma is considered a rare neoplasm with lentigo maligna. The most frequent subtype. They are slow growing tumors with radial growth phase vertical progression occurs in only 5% of cases. Palpebral melanomas originate from the skin or conjunctival membrane. Those with conjunctival are usually more aggressive and with poor prognosis than those restricted to the palpebra due to local lymphatic drainage surgical excision is the procedure of choice in primary palpebral melanomas. Early diagnosis is essential for a safe excision achieving good functional results. According to cutaneous Melanoma guidelines, 5-mm margins are sufficient for treatment of in situ lesions, although in lentigo maligna melanoma in situ, this margin may not be enough in up to 35% of cases. In Palpebral melanomas, size of surgical margin was not related to local recurrence or distant metastasis, with depth of invasion being the most important prognostic factor.

The Utility of Fused Anatomic and Functional Images, SPECT-CT, in the Management of Head and Neck Melanoma

Neivo da Silva Jr; Carlos Anselmi; Felice Riccardi; Daniela Fernandes; Osvaldo Anselmi
Complexo Hospitalar Santa Casa de Porto Alegre

In patients with head and neck cutaneous malignant melanoma, preoperative lymphoscintigraphy can be used to map lymphatic drainage patterns and identify sentinel lymph nodes (SLN). It is of clinical importance because of the ambiguous lymph node drainage and the depth of the nodal basin. For this reason, it is very difficult to determine the exact location of head and neck sentinel nodes on preoperative standard planar lymphoscintigraphy. SPECT/CT imaging facilitates the localization of SLN by showing the relationship between node and important anatomic structures. The system, which was composed by a dual head gamma-

camera combined with a diagnostic CT scanner system, generates high-quality anatomic images to be fused with functional images. The purpose of this study was to assess the clinical benefit of fused SPECT/CT images over standard planar images for SN mapping, in patients with head and neck cutaneous malignant melanoma, demonstrating how SPECT/CT imaging can enable precise sentinel node localization and thus help to ensure minimal dissection. Fifteen consecutive patients with head and neck melanoma were enrolled. Scintigraphy was performed using a hybrid gamma camera/ low-dose diagnostic CT system (SYMBIA T2). ^{99m}Tc -phytate divided into 4 equal aliquots of 0.2 mL were injected intra-dermally at the borders of the primary tumor site or excisional scar. Planar images were obtained within 30 minutes after injection and continued until the SNs were identified, up to 3 h after injection, if necessary. Then a SPECT/CT study was performed. Sentinel node localization was interpreted separately on planar and on fused SPECT/CT images. All the patients underwent SLN biopsy using a gamma probe and patent blue. The sample was comprised by 10 men (66%) and 5 women (34%). The most common histological melanoma type was superficial spreading (51.5%). Mean tumor thickness was 2.77mm. SPECT/CT identified multiple draining basins in 5 of the 15 patients (33%). In 4 of the 15 patients (26%), the SPECT/CT-fused images identified SNs that were missed on planar images. Three of the 30 nodes were located close to the injection site and were hidden by its scattered radiation. In conclusion the SPECT/CT SN mapping provides additional data that are of clinical relevance to SN biopsy in patients with head and neck melanoma. The SPECT/CT combined system was useful in recognizing the anatomical location of sentinel lymph nodes before radio-guided biopsy.

Tumor Bank- Model with Different Sites of Collection

Alberto Wainstein;Karine Lima; Nathália Paz; Rosana Siqueira; Pollyana Magalhães; Fernanda Parreiras; Rafael Carvalho; Marcus Nogueira; Eduardo Castro; Octávio Menezes; Ana Paula Drumond-Lage
BioCancer, FHEMIG, ONCAD - Belo Horizonte,

Cancer is the second cause of death in Brazil. Molecular technological advances have contributed greatly to the knowledge of the molecular pathology of

neoplastic diseases, allowing the study of genetic factors to better define diagnosis and therapy. The knowledge generated from the studies will only be applicable when validated by precise tumor samples, using human cell lines. There is a high relevance of studies that evaluate the Brazilian population and peculiarities. **Objectives:** The multi-institutional model creates a decentralized structure of tissue collection and research, contributing to a significant increase in the number of samples through the integration of information and provision of tissues. It's necessary to have protocols and standard operating procedures available for routine established, to assist in the deployment of other units or independent centers of collection, in the case of small or medium size hospitals. **Materials and Methods:** Tumor Bank should be recognized and approved by local Ethics Committee. All the explanations, an informed term of consent must be offer and signed by the donor. Tissues are collected during the course of surgery or standard medical procedure without disturb it, and identified by code. The pathologist plays a key role in the evaluation of the tissue. The material is also used in techniques of immunohistochemistry, molecular biology and stored at low a temperature that provides ideal conditions for different studies. The budget includes funds for salaries, transport, materials consumption, the dissection instruments, specialized equipment and computer. A software developed specifically for the management of all data shall be prepared to allow the information to be correlated. The samples and results of research, associated with clinical and laboratory information establish have high value. **Results:** This model provides samples of melanoma, other tumor tissues and work as a tool for development of other banks tumors. **Conclusion:** This model makes possible a network of doctors, hospitals, cancer units that alone would have a low impact but together could set up a integrated tumor bank. It's expected excellence levels that contribute to science, creation of new researches, professional training, investments and partnerships through a database with clinical relevance.

Immunomodulatory Effects and Inhibit Tumor of the INKKI and YPVEPFTE Peptides from β -Casein in Experimental Melanoma

Azevedo, R.A.;Kleber, A.F.; Lebrun, I; Maria, D.A.
Biomemistry and Biophysical Laboratories, Butantan Institute, SP, Brazil.

Peptides INKKI and YPVQPFTE were isolated from the bovine β -casein after hydrolysis corresponding to the 23-30 and 114-121 sequence, respectively. The aim of this work was to evaluate the activity proliferative, antitumor and hematological of the casein peptides INKKI and YPVEPFTE in the experimental melanoma. Evaluation of the proliferative activity in lymphocytes T culture. The evaluation of the migration was accomplished in the exsudato inflammatory, dorsal region Balb-c mice. The activity antitumor "in vitro" was accomplished culture of murine melanoma B16F10 and normal human fibroblast, from method colorimeter MTT ("3-(4,5-dimethylthiazol-2-yl) 2,5-diphenyl tetrazolium bromide"). The model "in vivo" of melanoma was accomplished groups with 30 C57BL/6J lines mice, after the implant of 5×10^4 cells B16F10, the animals were treated with peptides INKKI, YPVEPFTE and saline solution, administered by peri-tumor injection, and had been evaluated the following systemic parameters and antitumor: blood, phases of the cellular cycle, tumor volume, area and metastases number. Our results showed that both peptides exhibited significant response

proliferative in cultures of lymphocytes T. The peptide INKKI presented chemotactic in the inflammatory exsudato action. In B16F10 cells melanoma, in the concentration 2,0 to 0,03 μM , the peptide INKKI exhibited selective citotoxic activity, with inhibitory concentration IC50% of 0,23 μM , without quantitative modifications in normal fibroblast. The bearing animals of dorsal tumors of melanoma B16F10 treated with peptide INKKI presented significant inhibition of the volume and area tumor, showing reduction in the growth and dissemination. The hematological evaluations showed that the treated animals with peptides didn't developed anemia, decrease in the platelet number and only those treated with YPVEPFTE peptide increased leucocytes number. Our data showed that both peptides exerts a mitogenic effect in cells T and, that only the peptide INKKI presented chemotactic activity. The peptide INKKI exhibited selective citotoxic activity in B16F10 cells melanoma and was capable to inhibit the tumor development in the experimental model of melanoma, as well as the reduction of the collateral effects hematological found in tumor. Financial Support: FAPESP