Peritoneal implant of choriocarcinoma following a cesarean section for hidatidiform mole

RUI LUZZATTO [1], GUSTAVO SISSON [2], NIVALDO GATTI [3], TAMARA MATTOS [4]

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Key words: Choriocarcinoma. Peritoneal implant.

RESUMO — É relatado um caso de implante peritoneal de coriocarcinoma, ocorrendo sete anos após a evacuação abdominal de uma mola hidatidiforme.

O caso acrescenta nova rota de metástases para esta neoplasia, enfatizando o risco e as conseqüências das cirurgias abdominais no tratamento das gestações molares.

Choriocarcinoma is a rapidly invasive and widely metastatic neoplasm, although spontaneous regression as well as metastasis occurring several years after the diagnosis of an hydatidiform mole have been reported. Trophoblastic cells usually reach other organs by blood vessel dissemination and their highly invasive properties play an important role in this route of spread. These gestational neoplasms are grafts of malignant fetal chorionic cells upon a maternal host, and may determine an immunological response which in tissue sections is represented by a lymphocytic infiltrate surrounding the tumor or its metastasis. Cases showing it have a significantly better chance of survival [3]. This host versus graft response was marked in the case reported in this paper and may have accounted for the period elapsed between the peritoneal seeding of trophoblastic cells and the clinical manifestations of choriocarcinoma.

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1. Professor Adjunto do Departamento de Patologia da Faculdade de Medicina da Universidade Federal do Rio Grande do Sul.

2. Ginecologista do Hospital Vila Nova de Porto Alegre.

3. Diretor do Hospital Vila Nova de Porto Alegre.

4. Patologista do Instituto de Patologia.

CASE REPORT

A 28-year-old female was admitted with amenorrhea, a palpable pelvic mass and a positive test for pregnancy.

Past medical history revealed that at age 21 she had an hydatidiform mole which after an attempt to induce labor with ocytocin was evacuated through a cesarean section. After the evacuation, the abdominal cavity was rinsed with saline.

The uterus had a normal involution and monthly determinations of HCG during 6 months showed normal results. One year after this surgery she became pregnant and delivered a normal baby. The examination of the placenta was unremarkable both grossly and microscopically. She remained asymptomatic until a second admission seven years after the evacuation of the mole, when a physical examination revealed a pelvic mass and a HCG measurement of 28,000IU. She was submitted to an exploratory laparotomy. A tumor was found adherent to the large omentum and was widely excised. It measured 4.8x4.5cm in largest dimensions, was well circumscribed from the surrounding adipose tissue, and the cut surface was redish dark in color with yellow areas (fig. 1). A frozen section diagnosis was reported as metastatic choriocarcinoma to the omentum. A total hysterectomy was performed. Microscopic examination of paraffin embed-

ded tissue disclosed characteristic syncytiotrophoblastic and cytotrophoblastic cells, areas of hemorrhage and necrosis. The tumor was surrounded by a lymphocytic infiltrate (fig. 2) and no chorionic villi were found after multiple sections. Through gross and microscopic examination of the uterus failed to reveal a primary tumor or any other evidence of residual trophoblastic disease in this organ.

The post operatory recovery was uneventful and gonadotrophin levels, including the beta subunit decreased rapidly to normal levels after the surgery. The patient was placed on chemotherapy with methotrexate and cyclophosphamide and presently, 54 months after the removal of the peritoneal tumor, she is asymptomatic with no clinical or laboratorial evidence of disease.

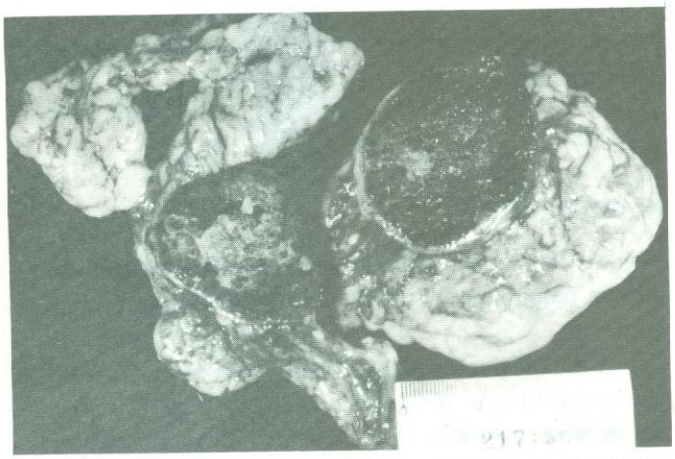

Fig. 1 — Nodule in the omentum with areas of necrosis and hemorrhage, typical of choriocarcinoma

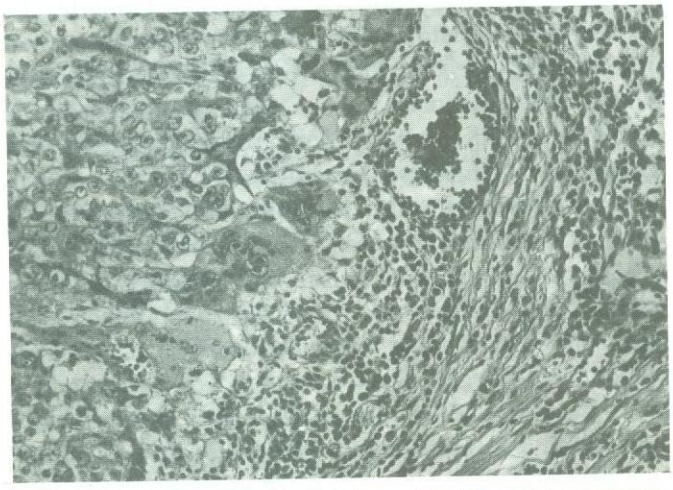

Fig. 2 — Section in the perifery of the nodule. The cytotrophoblastic and syncytiotrophoblastic cells are surrounded by a dense lymphocytic infiltrate (H&E, x160).

DISCUSSION

Gestational choriocarcinoma arises most frequently from an hydatidiform mole, like in this case, or it may follow an abortion, a normal or ectopic pregnancy. The diseade usually manifests clinically within a year from one of those conditions, has a rapid course and metastases are more common in lungs, vagina, brain, liver, bones and kidneys. The dissemination to these organs indicates an almost exclusively hematogenous spread, there are however reports of metastases to lymph nodes [7,8] indicating that occasionally it may spread through lymphatic vessels. Metastatic disease to the fetus also has been reported [1,4]. In this report the occurrence of a peritoneal implant of choriocarcinoma after an abdominal evacuation of a mole adds another route of metastasis for this disease.

Because of their paternal constituents, the gestational choriocarcinoma cells are an allograft in the maternal environment, and an immunological host versus graft response may develop against them. The reasons why this response does not occur during the full length of a normal pregnancy are not known. On histological sections it is characterized by a lymphocytic infiltrate surrounding tumor cells. In our case this infiltrate was present in all sections taken from the periphery of the tumor. This host versus graft response in choriomas explains why in some cases, in spite of their high degree of malignancy, not treated choriocarcinomas may exhibit spontaneous involution and cure.

Sometimes a disappearance of metastasis of choriocarcinoma occur after removal of the primary tumor in the uterus. There are also several facts suggesting that the immunocompetence of the host plays an important role in the growth control of the choriomas. Incidentaly, this is well demonstrated in the case reported by Gokel [6] of an inadvertently transplanted metastasing choriocarcinoma to a man from a female cadaver kidney. A regression of metastasis occurred after immunosupressive therapy was discontinued. There are paradoxical occurrences in which the primary tumor completely disappears and the patient dies with widespread metastasis [5]. This possibility should be considered in the reports on pre or post menopausal women with choriocarcinomas supposedly arised in esophagus, stomach and other organs [9,10]. The origin of these choriocarcinomas from placental trophoblastic cells which have remained latent in these organs must be suspected, since periods of more than 30 years

between the last pregnancy and metastatic trophoblastic disease are known to occur [2].

Considering these long periods of time reported, the seven year interval between the molar disease and the metastasis of choriocarcinoma of our case is by no means remarkable, but it shows that the risk of spillage of trophoblastic cells in the peritoneum should always be considered as a definitive contraindication for removal of the molar tissue through abdominal surgeries.

SUMMARY

A peritoneal implant of choriocarcinoma occurring 7 years after an abdominal evacuation for hydatidiform mole is reported.

This case adds another route of metastases for this neoplasm and points to the risk and undesirable consequences of abdominal surgeries in the treatment of molar pregnancies.

REFERENCES

1. BUCKEL, EWC & OWEN, TK Chorionepithelioma in mother and infant. J. Obstet. Gynecol. Brit. Emp. 61: 329-333, 1954.
2. DOUGHERTY, CM; CUNNINGHAM, C; MICKAL, A Choriocarcinoma with metastasis in a postmenopausal woman. Am. J. Obstet. Gynecol. 132: 700-701, 1978.
3. ELSTON, CW & BANGSHAWE, KD Cellular reaction in trophoblastic tumors. Cancer, 28: 245-256, 1973.
4. EMERY, JL Chorionepithelioma in a newborn male child with hyperplasia of interstitial cells of testis. J. Pathol. Bacteriol. 64: 735-737, 1952.
5. FREETH, D & McCALL, AJ Chorionepithelioma with amenorrhea, massive hepatomegaly with undiscovered primary tumor. J. Obstet. Gynecol. Brit. Emp. 57: 757-760, 1950.
6. GOKEL, JM et al. Metastatic choriocarcinoma transplanted with cadaver kidney. Cancer, 39: 1.317-1.321, 1977.
7. JUNAID, TA et al Choriocarcinoma in Ibadan, Nigeria: epidemiological aspects. J. Natl. Cancer Inst. 53: 1.597-1.599, 1974.
8. PARK, WW & LEES, JC Choriocarcinoma: a general review, with analysis of 516 cases. Arch. Pathol. 49: 73-104, 1950.
9. TRILLO, AA; ACCETTULLO, LM; YLITER, TL Choriocarcinoma of the esophagus: histological findings, a case report. Acta Cytol. 23: 69-74, 1979.
10. WURZEL, J & BROOKS, JJ Primary gastric choriocarcinoma. Cancer, 48: 2.756-2.761, 1981.

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