## **EDITORIAL**

## Melanoma

Melanoma incidence is steadily increasing over most countries!

Brazil is not an exception specially in the southern regions and, as you will see in this journal review, it has been spent more than eight million Reais in medical assistance for melanoma in 2006.

Early diagnosis and excision is, so far, the best standard of care for this fatal disease. When diagnosed in early phases, cure rates are high. Therefore, awareness of subtle changes in nevi and/or new-pigmented lesions must be a goal in prevention,

In spite of a better and early diagnosis, melanoma has increased its mortality over the years and became, in some countries such as Australia, one of the most important health care issues of governmental policies.

Senescence of melanocytes has been explained by several mechanisms, including the loss of telomeres. These proteins are nucleoproteic complexes located at the extremities of chromosomes, and are conserved and repetitive sequences of double stranded DNA followed by a single stranded guanine rich extremity. This is the substrate for telomerases and telomeric proteins related to its maintenance and protection against damage.

Human telomeres have 6 nucleotides repeated in tandem, and telomerases are able to recognize these sequences and extend it. Once activated, telomerases allow cell proliferation and immortalization. The activation of this enzyme has been described in several neoplasms.

In the next pages, among other articles, you will find an extensive review on melanomas and its relationship with telomeres and telomerase.

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