A word of caution: Do not wake sleeping dogs; micrometastases of melanoma suddenly grew after progesterone treatment

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Hormonal treatment might affect the immune response to tumor antigens induced in cancer patients who are being vaccinated. A 33-year-old woman was diagnosed with cutaneous melanoma in May 2009. Her melanoma was located in the intermammary sulcus, Breslow thickness of 4 mm, Clark's level IV, ulcerated and highly melanotic; bilateral sentinel node biopsy was negative. She entered into a randomized Phase II/III clinical study comparing a vaccine composed of irradiated melanoma cells plus BCG plus GM-CSF versus IFN-alpha2b and was assigned to the vaccine arm. During the two-year treatment, she remained disease-free; final CAT scan being performed in August 2011. Between November and December 2011, her gynecologist treated her with three cycles 200 mg progesterone/day for ten days, every two weeks, for ovary dysfunction. In November 2011, the patient returned to the Hospital for clinical and imaging evaluation and no evidence of disease was found. At the next visit in March 2012, ultrasound revealed multiple, large metastases in the liver. A CAT scan confirmed presence of liver, adrenal glands and spleen metastases. A needle biopsy of a liver lesion revealed metastatic melanoma of similar characteristics to the original tumor. We suggest that progesterone treatment triggered proliferation of so far dormant micrometastases that were controlled during CSF470 vaccine treatment. The use of progesterone in patients with melanoma that are under immunological treatments should be carefully considered, since progesterone could modify the balance of pro-inflammatory/Th1 functions to a regulatory and anti-inflammatory profile of the immune system that could have an impact in tumor progression.

Biography

Barrio M M graduated in 1991 as a Biologist at the University of Buenos Aires and obtained her PHD working on monoclonal antibodies at the Fundación Instituto Leloir. She became a member of The National Scientific and Technical Research Council (CONICET) in 2007. She has been working in cancer immunology as part of Dr. Mordoh’s team since 1984. At present is Subdirector of the Centro de Investigaciones Oncológicas Fundación Cáncer. She has published more than 40 scientific papers about her specialty. She is working in translational research for the development of therapeutic vaccines for cutaneous melanoma.

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