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Service (sector) Tumor and Pathology - OPHTHALMIC PATHOLOGY N°  
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### **Immunohistochemical expression of melan-A and tyrosinase in uveal melanoma**

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**Purpose:** To investigate the expression of melan-A and tyrosinase in uveal melanoma and the feasibility of detecting circulating malignant cells (CMCs) in the peripheral blood of uveal melanoma patients from Brazil. **Methods:** Thirty-six enucleated cases of uveal melanoma were divided into two groups based on whether or not the patient received radiotherapy prior to enucleation. The specimens were immunostained with monoclonal antibodies against melan-A and tyrosinase. Differences in expression rates between the two groups, as well as the correlation with clinical-histopathological prognostic factors were studied. Additionally, RT-nested-PCR for melan-A and tyrosinase was used to detect CMCs in the peripheral blood samples of 6 uveal melanoma patients diagnosed in Brazil. **Results:** Melan-A was positive in 19 (90,5%) of the 21 specimens in group 1 (enucleation) and in 14 (93.3%) of the 15 specimens in group 2 (radiation prior to enucleation) ( $p>0,05$ ). Tyrosinase was positive in 20 (95.2%) of the specimens in group 1 and in 100% of the specimens in group 2 ( $p>0,05$ ). There was no significant association between the expression of melan-A or tyrosinase and radiotherapy, nor with any other prognostic factor. All specimens were positive for at least one of markers. Regarding the detection of CMCs, all samples shipped overseas maintained the integrity of the material and 5 of the 6 patients were positive.

**Conclusions:** When melan-A and tyrosinase are used together, all of the samples were positive for at least one of the markers. The detection of CMCs, using RT-nested-PCR, in the peripheral blood of uveal melanoma patients diagnosed in Brazil was feasible.