Visual inspection of the genital tract showed the presence of a gray-white sessile mass of the upper vagina protruding into its lumen. The mass did not consent the visualization of the uterine cervix, was fixed to the lateral vaginal wall and was lined by an eroded oozy mucosa covered by a yellowish slime. External genitalia were atrophic, showing reddened epithelium with focal keratotic areas. A clinical diagnostic hypothesis of vaginal carcinoma was put forward and a LBP cytological sample was taken by gently scraping the surface of the lesion with a soft plastic Cervex brush (Rover Medical Intruments, B.V). The cytological sample was fixed into Preservcyt™ and processed by a Thin Prep 2000™ (Cytyc Italy, Rome). Some small forceps biopsy fragments were also taken, which were immediately fixed in 10% buffered formalin and sent for histopathological examination.

Cytological and immunocytochemical findings

Cytopathological examination of Papanicolaou stained thin layer preparations showed a rather homogeneous population of dispersed neoplastic cells of medium to large size in a clean background. The neoplastic elements outnumbered the normal squamous cells of the vaginal mucosa and displayed generally single, round nuclei with kidney-shaped or irregularly cleft nuclear membrane. The nuclear chromatin was densely granular and one to three prominent nucleoli of irregular shape were present per nucleus. Cytoplasm ranged from scarce to moderate: it was greyish to greenish and had a rather dense appearance with a perinuclear clear halo and an area of ring-like condensation in the vicinity of the cellular membrane; a minority of the cells showed a finely vacuolated cytoplasm. Cytoplasmic borders displayed irregular surface evoking hyperplastic microvilli (Fig. 1).

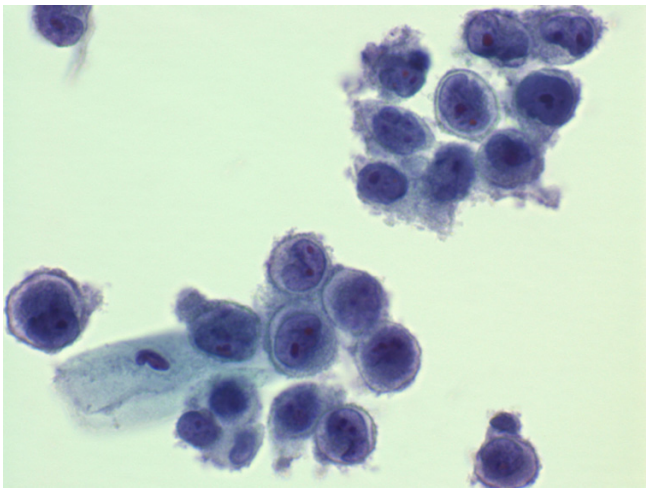

Figure 1
Thin layer preparation, vaginal melanoma. Note the dispersed proliferation of highly atypical medium sized cells with ovoid or kidney-shaped, nucleolated nuclei. The neoplastic cells display a scarce to moderate amount of greyish granular cytoplasm with peripheral condensation and cytoplasmic projections suggestive of hyperplastic microvilli (Papanicolaou stain, 600×, original magnification).

Due to the peculiar cytomorphology of the neoplastic cells and to the absence of "tumour diathesis", the clinical hypothesis of vaginal carcinoma was discarded in favour of a possible melanoma diagnosis. New LBPs were obtained from the original sample that were fixed in 95% ethanol and processed for immunocytochemistry for Vimentin (clone V9, diluted 1:80), S-100 (polyclonal antibody, 1:250), pan-cytokeratin (clone 6 F11, 1:80) and HMB 45(clone HMB 45, !:80) by using commercially available antibodies (Novocastra, U.K.) and an automated immunostainer (Dako Autostainer, Dako Italy, Milan). Positive controls were represented by small histopathological sections of known reactivity that were stained in the same run. The neoplastic cells showed a diffuse cytoplasmic positivity for Vimentin, S-100 protein and HMB 45, while pan-cytokeratin staining was negative (Figs. 2 and 3). A cytopathological diagnosis of nevoid (amelanotic) melanoma was made.

Histopathological findings

The cytopathological diagnosis was confirmed on the biopsy fragments on which a diagnosis of infiltrating epithelioid cell amelanotic melanoma was made.

Magnetic Resonance Imaging demonstrated a 5 × 4 × 4 hyperintense mass in T1, located in the upper left third of vagina infiltrating the vaginal wall, though being appar-

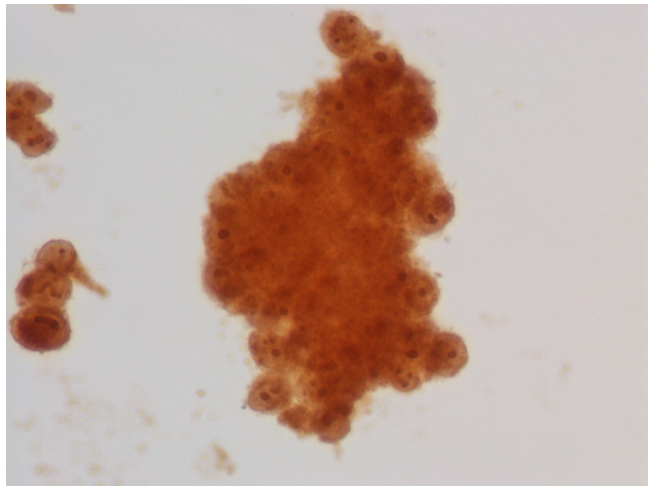

Figure 2
Thin layer preparation, vaginal melanoma: immunocytochemical stain for HMB 45 showing diffuse cytoplasmic positivity in neoplastic cells.