

**PROSTATIC MELANOSIS :
A VERY RARE CONDITION IN UROLOGICAL PATHOLOGY.**

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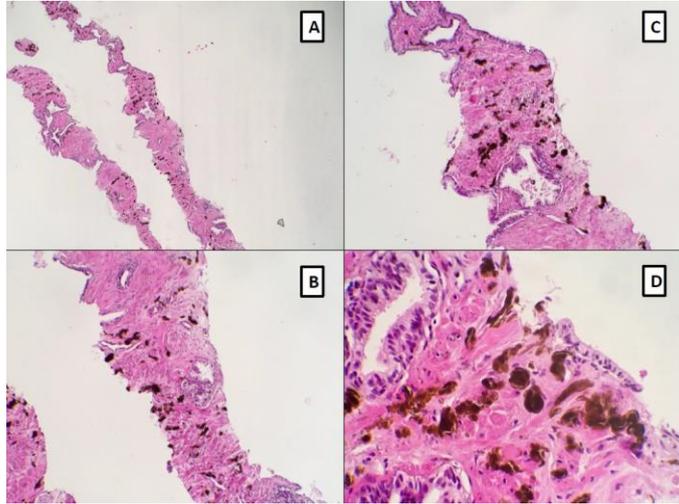
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Sir,

Melanocytic lesions of the prostate are mainly classified under three types: Melanosis, blue nevus, and primary/metastatic malignant melanoma [1, 2]. Prostatic melanosis consists of the deposition of melanin pigment both in the glandular cells and the stroma. On the other hand, prostatic blue nevus is defined as the presence of melanocytic cells in the prostatic stroma. Both of them are benign lesions of the prostate gland and no melanocytic or non-melanocytic malignancies were reported to have developed from these underlying conditions [1, 3 - 4].

Here we describe an uncommon case of prostatic melanosis, occurring in a 62-year-old man, who benefited from multiple echo-guided prostatic fine-needle biopsies for a suspicion of prostatic adenocarcinoma.

Microscopy revealed nodular hyperplasia associated with a mild chronic inflammatory process and a prostatic melanosis comprising fusiform stromal cells and some epithelial prostatic glands with intense brown melanin pigment (Figures A, B, C, D). Masson-Fontana technique and S-100 (+) immunohistochemistry supported the diagnosis.



Brown-black abundant pigment in the dendritic stromal cells and focally in the glandular epithelial cells.
A) HE, x50. B) HD, x100. C) HE, x200. D) HE, x400.

Prostatic melanosis is an extremely rare event with only 30 cases reported so far [1 - 3]. It is generally discovered in elderly patients, who were managed for affections associated with prostate hypertrophy. It can be seen in different specimens : fine- needle biopsies, TUR-P and prostatectomy pieces. It is more common among the Caucasian race [2, 5].

Histopathological diagnosis of prostatic melanosis is based on the observation of brown-black pigment "melanin" deposition in the epithelial prostatic gland neighboring dendritic cells, unlike the blue nevus [2, 5]. The pigment stains black with Fontana-Masson (FM) technique.

Prostatic melanoma shows classically a black color in the prostate and contains cells that are obviously malignant in appearance. Histological malignancy criteria are including hypercellularity, cellular atypia, nuclear pleomorphism, distortion of the architecture, increased mitotic activity, and poor differentiation [6].

In addition to histological findings, immunohistochemical (IHC) staining is also based on the analysis of S100, HMB45 and Melan-A antibodies. In prostatic melanosis, the stromal dendritic cells stain positively for S-100 protein, but negatively for HMB-45 and Melan-A [2, 5, 6].

Other causes of prostatic black discoloration are lipofuscin and hemosiderin, which may be confused with melanin. While hemosiderin has large golden-brown grains and is generally in the stromal macrophages, lipofuscin has fine yellowish-brown grains [2, 7].

According to the commonly-reported theory, the origin of the melanocytic lesions of prostate is the neural crest-derived melanocytes, which are arrested in the prostate during their migration in the body [2, 5].

As a result, known to be a benign melanocytic lesion of prostate, melanosis is very rarely seen and it has to be differentially diagnosed from malignant melanoma when it is observed.

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