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Olgu Sunumu / Case Report

Prostatic Melanosis: A Case Report

Prostatik Melanozis: Olgu Sunumu

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ABSTRACT

Prostatic melanosis is characterized by melanocytic proliferation in prostatic stroma and the epithelium. The pathogenesis of the lesion is uncertain. In literature it has been reported as a case associated with prostatic adenocarcinoma before. Primary and metastatic malignant melanoma should be considered in differantial diagnosis of the lesion.

Key Words: Prostatic melanosis, Melanosis, S-100.

ÖZET

Prostatik melanozis prostatik stroma ve epitelde melanin birikmesiyle karekterizedir. Patogenezi kesin olarak bilinmemektedir. Literatürde prostatik adenokarsinomla birlikteliği bildirilmiştir. Ürolojik açıdan primer ve metastatik melanomdan ayırımı gerekmektedir.

Anahtar Kelimeler: Prostatik melanozis, Melanozis, S-100

INTRODUCTION

Prostatic melanosis is a lesion containing melanosytic granules in both prostatic stroma and the epithelium. Melanocytic lesions generally occur in the skin, but can rarely be found in other parts of the body. In literature they have been reported in the ovaries, gall bladder, adrenal glands, parotids, esophagus, and vagina before[1]. Prostatic localization of these lesions is particularly uncommon.

Here we report a case, incidentally diagnosed as prostatic melanosis after transurethral prostatectomy .

CASE REPORT

A 59-year old patient having one year history of prostatism symptoms was admitted to our clinic. There was alfa- blocker medication (tamsulosin 0,4 mg) in his past medical history. Laboratory test results were normal, with a PSA level of 3,09 ng/ mL. Ultrasound showed normal kidneys and bladder and a prostate volume of 65 gr. Uroflow was performed for the evaluation of patient's voiding functions (figure 1) . After all test results, the patient was diagnosed as benign prostatic hiperlasia and transurethral resection of the prostate was suggested. In cystoscopy; bladder trabeculation, prostatic trilober hypertrophy were detected and as a result , transurethral resection of the prostate was applied to the patient. Patient was discharged from hospital in the second day after operation without any complications. After the operation, the resected tissue was examined by pathology department. On microscopic examination, black granules in both stoma and epithelial cells showed positive staining with

Masson-Fontana which is used for confirming the melanin nature of the granules (figüre 2). After bleecing pigment granules were not stained at all. Immunhistochemistry demonstrated positive staining of these cells with antibodies to S100, Melan A and HMB45. Judging from these findings the lesion was diagnosed as prostatic melanosis.

He did not have any skin lesion suspicious for malignant melanoma in his dermatological consultation. The patient has been followed with normal PSA levels during last two years .

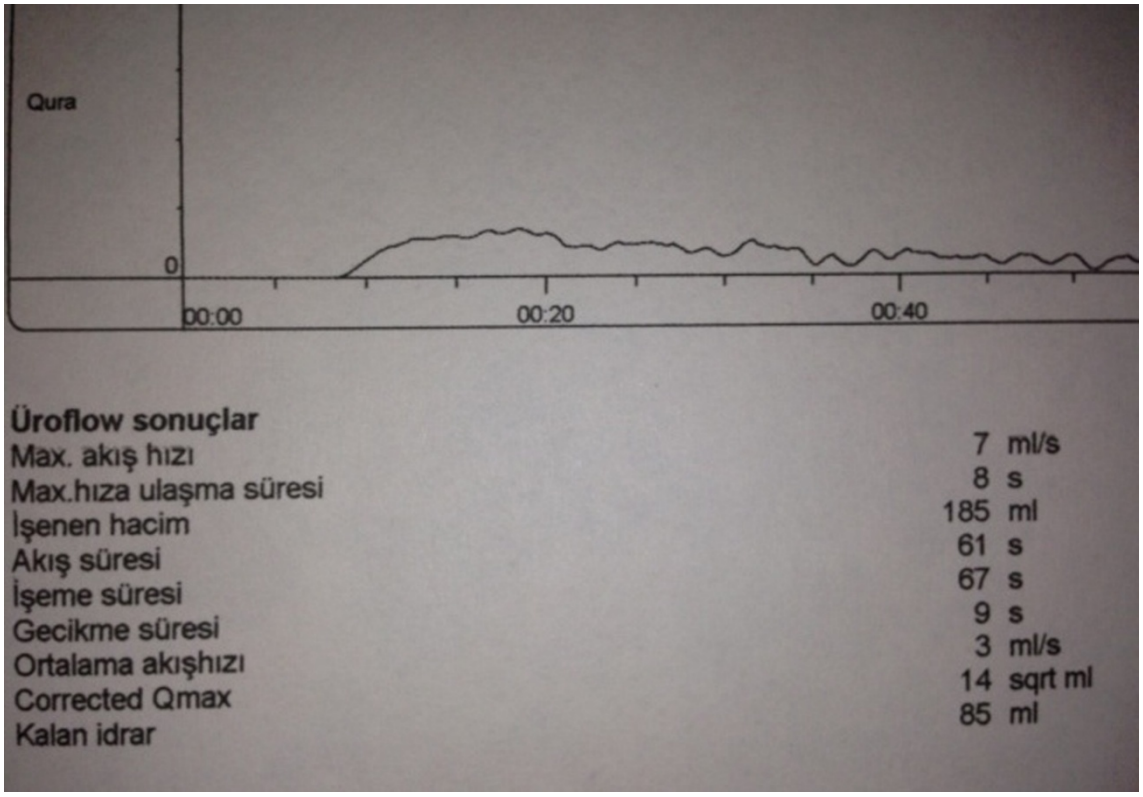

Figure 1 Uroflowmeter, obstructive voiding symptoms, prolonged voiding time

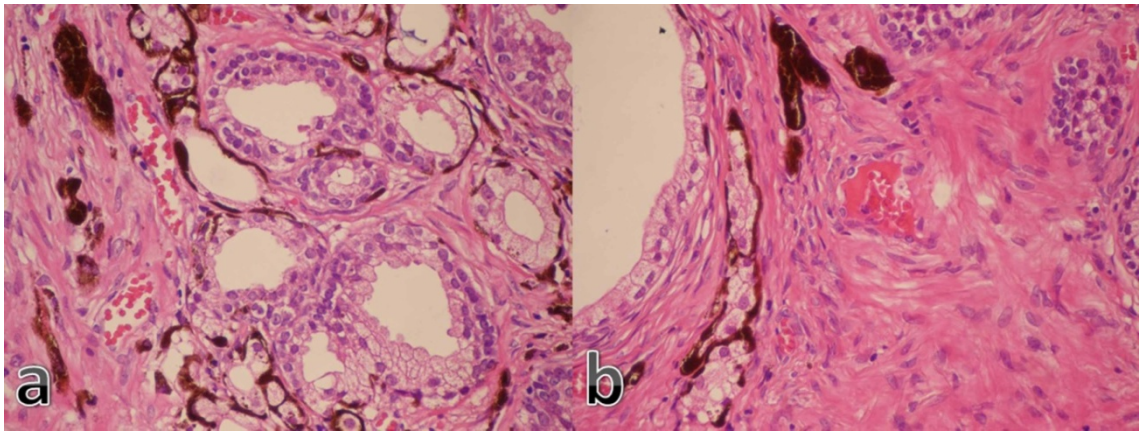

Figure 2 a-b Histopathologic appearance of the melanosis, black granules in both stoma and epithelial (H&Ex40).

DISCUSSİON

Melanine is a pigment which is derived from tyrosine. Tyrosin dopamine, epinephrine,and thyroxine and precursor of melanin. This pigment is normally found in the skin, hair, pigment layer of the retina, choroid of the eye and certain nevre cells. It occurs abnormally in the tumors known as melanoma[2]. Melanosis is a word denoting any condition characterized by abnormal dark coloration of skin or mucosa. Prostatic melanosis is a very rare lesion, only 20 reports of melanosis have been reported in the literature[1]. Many of them have been detected incidentally.

It has been reported firstly by Nigogosyan et al.[3]. Two types of benign melanocytic proliferation in prostate have been previously described. In the first type of lesion, termed as blue nevus, melanin is found exclusively in the prostatic stromal cells. The other type of lesion is known as melanosis and, as described shows melanin both in the prostatic stroma and the epithelium.

The origin of ectopic melanocytes is controversial. Two theories that might be associated with the pathogenesis has been postulated . The first theory suggests that melanoblasts originate from the neural crest, migrate along with the mesoderm and, under the appropriate conditions mature into melanocytes in the connective tissue. The second one suggests the possibility of Schwann and endoneural cells transforming into melanocytes[4,5]. It is currently admitted that only prostatic stromal cells, but not epithelial cells, have capacity for melanogenesis, and that melanin is passively transferred from stroma to epithelium[6]. Melanin containing cells are usually painted by S-100 ve HMB-45 immünohistochemically. It should be differantiated from other dark-pigmented granules, such as hemosiderin, lipofuscin. Lipofuscin, a golden yellow pigment, is found abundantly in seminal vesicle and ejaculatory ducts as well as in many tissues and organs[7]. In fact, lipofuscin was used to differentiate seminal vesicle from prostatic epithelium. Immunhistochemically it is negative for S-100 protein. Brennick et al. revealed that this pigmentation is quite common in normal prostatic epithelium (57%)[8]. It is mostly located in basal portion of the epithelial cell cytoplasm in contrast to luminal location of the lipofuscin in seminal vesicles.

Prostatic lesions caused by iron deposits (hemorrhage, infarction, abscess, and primary or secondary hemochromatosis) should also be included in histopathological differential diagnosis.

Although prostatic melanosis is incidentally found and very rare lesion , its association with prostatic acinar adenocarcinoma has been reported[1]. In literature Sharon et al has also reported a case diagnosed as melanosis of the urinary bladder and presented with transitional cell carcinoma of the bladder 1 year later[9]. However, because of the rarity and unknown course of melanosis, it might be prudent to initiate on going surveillance of patients with this condition to check for the development of urothelial or melanocytic malignancy. Primary and metastatic malignant melanoma must be considered in differfentail diagnosis. It should be keep in mind that 37% of malignant melanoma might be metastasis to genito-urinary system[10].

However the clinical significance of this condition is not clear, urologists and pathologists should be aware of its existence.

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