

ADENOMATOİD TUMOR OF THE PARATESTICULAR REGION: TWO CASE REPORTS

PARATESTİKÜLER ADENOMATOİD TÜMÖR: 2 OLGU SUNUMU

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Abstract

Adenomatoid tumors are benign, slowly growing tumors which are thought to have a mesothelial origin and usually located in the paratesticular region. However, the rarity of these lesion can lead to problems in differential diagnosis with other testicular tumors when the tumor is seen in different locations. Adenomatoid tumors can be seen in extratesticular regions such as uterus and omentum. Histologically these lesions were characterized with small tubular or glandular structures lined by flattened epithelium surrounded by lymphocytic infiltration. However, the wide range of histological changes may lead the pathologist use immunohistochemical studies in addition to conventional light microscopic evaluation. Immunohistochemical panels showing mesothelial origin combined with a cytokeratin antibody can be used for diagnosing these tumors. Vascular markers, for tumors with more vascular appearance, and inhibin can be added for differentiating from sex cord tumors especially when the tumor is located in the tunica albuginea.

Key words: Adenomatoid tumor, paratesticular region, benign tumor, testis

Özet

Adenomatoid tümörler mezotelyal kökenli ve yavaş büyüyen, iyi huylu tümörler olup çoğunlukla paratestiküler yerleşimli olarak karşımıza çıkmaktadır. Bu tümörler nadir görülmeleri dolayısıyla, özellikle farklı lokalizasyonlarda yerleştiklerinde, diğer testiküler tümörlerle ayırıcı tanıda problemlere neden olabilirler. Ekstratestiküler yerleşimli lezyonlar şeklinde de sıklıkla uterus veya omentum gibi lokalizasyonlarda da görülebilmektedirler. Histolojik olarak basık bir epitelle döşeli küçük tübül veya glandüler yapılar çevresinde lenfositik infiltrasyon varlığı ile karakterizedir. Histolojik görünümündeki çeşitlilik patolojları ışık mikroskopik incelemeye ek olarak immunohistokimyasal çalışmalar yapmaya yönlendirebilmektedir. İmmunohistokimyasal panelde lezyonun kökenini ortaya koyacak mezotelyal belirleyicilere ek olarak bir sitokeratin antikoru kullanılmalıdır. Vasküler yapılarla benzerliğin dikkat çekici olduğu olgularda vasküler belirleyiciler uygulanması gerekebilir. Özellikle tunika albuginea yerleşimli lezyonlarda sex cord tümörlerinden ayırd etmek amacıyla inhibin paneli eklenmelidir.

Anahtar sözcükler: Adenomatoid tümör, paratestiküler bölge, benign tümör, testis

Introduction

Adenomatoid tumors are rare but the most common benign, slowly growing tumors of the paratesticular region. This entity forms 30% of all paratesticular tumors and is seen in 3-5th decades of life (1). Adenomatoid tumors which thought to have a mesothelial origin, usually locates in epididymis and can be diagnosed radiologically in this region however, atypical localizations and presentations may cause diagnostic problems (2). Herein we report two cases of adenomatoid tumors located around epididymis in paratesticular localization.

Case reports

Case 1:

46 year-old male patient with a 5-6 years painless mass in left testis applied to our Urology Clinic. In medical history, an operation for left inguinal hernia, hypertension and chronic obstructive pulmonary disease were noted. In physical examination, a mass of 2x1,5 cm was found and confirmed by USG and MRI as a solid, 17x16 mm mass located in posterolateral paratesticular region of left testis. All of the laboratory tests were in normal limits except the rise of LDH (lactate dehydrogenase) measured as 355 IU/ml. The patient went on excision and macroscopically an encapsulated mass of 3.5x3x2 cm with a gray-white cut surface was sent to our laboratory. In microscopic examination small tubular structures lined

by flattened cuboidal cells surrounded by lymphocytic infiltration were detected (Figure 1) . Immunohistochemical study revealed the expression of calretinin and cytokeratin(CK) 116 and negativity for CD31.

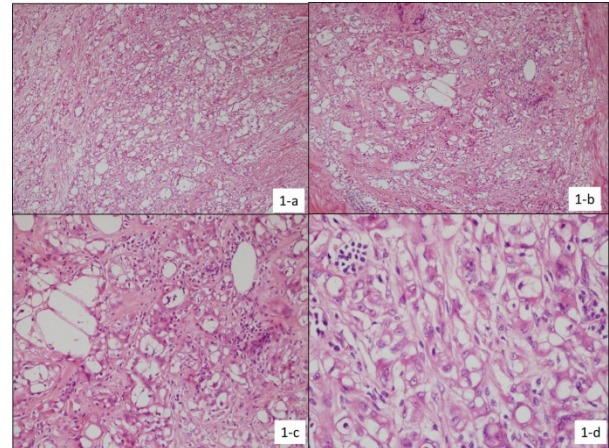


Figure 1: Case no1: Small tubular structures surrounded with scattered lymphocytes, HE, x40, x100, x200, x400

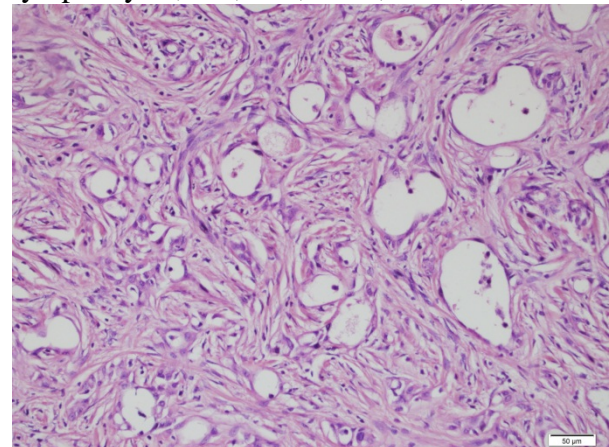


Figure 2: Case no2: Gland-like cystic structures and scattered lymphocytic aggregates, HE, x200

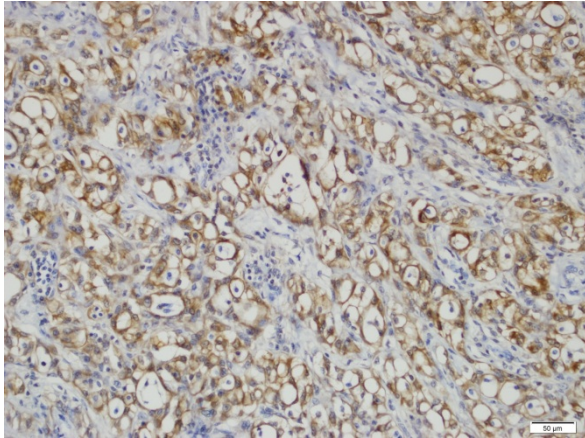


Figure 3: Calretinin positivity in tumoral cells, DAB, x200

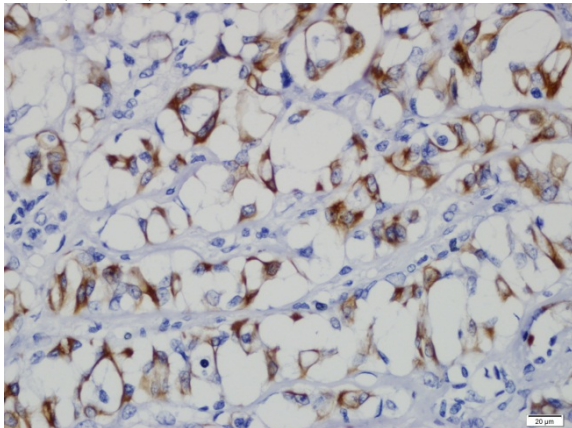


Figure 4: Pancytokeratin positivity in tumoral cells, DAB, x400

Case 2:

28 year old male patient applied to our Urology Clinic with a painless mass in the left testis palpable on physical examination. The patient mentioned that he detected the mass a few years ago in millimeters but it grew larger. All of the laboratory tests were in normal range and radiological examination report from another centre showed a mass of 2 cm in the left testis. The excisional biopsy was performed and a mass with an irregular surface was sent to our laboratory. The mass was measured as 2,5x2x2 cm in size and had a white nodular cut surface. In microscopic examination numerous tubular and gland like structures within a slightly fibrotic stroma with a few lymphocytic aggregates (Figure 3). Immunohistochemically the neoplastic cells showed positive expression of

calretinin and cytokeratin 116 (Figure 3 and 4).

Discussion

Adenomatoid tumors usually located paratesticular region are the most common benign and slowly growing tumor of this localization (1). However, diagnostic problems may occur when the tumor is seen in different locations. For example, especially for tumors located in tunica albuginea, differential diagnosis should include sex cord stromal tumors or other mesenchymal tumors even mesothelioma (3,4). Our cases were located around the epididymis as usual localization however many different even extratesticular locations such as uterus, omentum, pancreas were reported in the literature (5,6,7).

Adenomatoid tumors have a unique but sometimes challenging histological appearance with tubular, glandular structures, gland-like spaces and cyst formation [6]. Because of this wide range of histological changes, immunohistochemical studies can be performed in addition to conventional light microscopic evaluation (8).

Normal levels of AFP, β -HCG, LDH and CEA also can be used in excluding a malignant testicular tumor (9). Our case 1 had a high level of LDH resembling of malignant testicular tumor but the normal levels of AFP and β -HCG with the typical localization and the characteristic histological appearance helped us to exclude the doubt of a malignant tumor in this case. Also as known, many different reasons such as chronic diseases can cause a rise of LDH. The patient's history of chronic obstructive pulmonary disease can be an explanation for the high level of LDH (10).

Immunohistochemical panels showing mesothelial origin such as calretinin and HBME-1 combined with a cytokeratin antibody (CK AE1-AE3, CK116, CK5/6) can be used in these tumors' differential diagnosis. In cases

with histologically more vascular appearance CD31, CD34 and Factor VIII can be added to this panel in addition to inhibin for differentiating from sex cord tumors especially when the tumor is located in the tunica albuginea (11-12). Similar with the literature our cases showed diffuse expression of calretinin and CK116 with negativity for CD31.

In conclusion, adenomatoid tumors should be kept in mind especially in differential diagnosis of paratesticular lesions. In cases of atypical localizations and different histological appearances, immunohistochemical studies can be helpful in diagnosing and showing the mesothelial origin of the tumor.

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