

Case Report

Chondroid Syringoma of the Scrotum with Mix Inflammatory Infiltration

Ayse Nur Deger^{1*}, Bekir Aras² and Figen Taser³¹Department of Pathology, Faculty of Medicine, Dumlupinar University Kutahya, TURKEY²Department of Urology, Faculty of Medicine, Dumlupinar University Kutahya, TURKEY³Department of Anatomy, Faculty of Medicine, Dumlupinar University Kutahya, TURKEY

*Corresponding author

Ayse Nur Deger, Department of Pathology, Faculty of Medicine, Dumlupinar University Kutahya / TURKEY, Tel: 905052730538; Fax: 902742716620; Email: ayhade@yahoo.com

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Keywords

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- Mix inflammatory infiltration
- scrotum

Abstract

Chondroid syringoma consists of epithelial cells and mucinous stroma with mesenchymal cells. Although it is generally encountered at head and neck, we found a very rare chondroidsyringoma at the scrotum. Also mix inflammatory infiltration within stroma of the tumor was detected.

A 59 years old man complained of a solid mass in the scrotum. We found 2.5 X 2.5 X 2 cm subcutaneous and mobile tumor in the left posterolateral scrotal area. It was well circumscribed, cystic, septate, yellowish white in color. Spindle shaped cells with eosinophilic cytoplasm and small round nuclei mostly with cystic dilatation and also branching were seen at microscopic examination. Ductal structures were found in some areas. There was mix inflammatory infiltration without atypical cytology around tumor cells within mucinous stroma.

Chondroidsyringoma of the scrotum is very rare and eight cases were reported to our knowledge. We could not find any histologic interpretation regarding inflammatory infiltration within stroma of the tumor in literature.

INTRODUCTION

Chondroidsyringoma is a rare benign mixed tumor of the sweat gland which consists of epithelial cells and mucinous stroma with mesenchymal cells. Primary locations are generally on the head and neck region, particularly cheek, nose or skin above the lip [1,2,3,4]. We present chondroidsyringoma at the scrotum as a rare localization.

CASE REPORT

A 59 years old man complained of a solid mass in the scrotum. He states that he had this mass for 15 years with no changes. Physical examination revealed a subcutaneous mobile, cystic mass in the left posterolateral scrotal area. The left spermatic cord and testis was palpable. Biochemically lactate dehydrogenase (LDH) levels were normal and serum tumor markers such as alpha fetoprotein (AFP), beta human chorionic gonadotropin (beta HCG) were negative.

Excisional biopsy was carried out for subcutaneous scrotal mass. Grossly, tumor was well circumscribed, cystic, septate and yellowish white in color. The dimensions of the mass measured as 2.5X 2.5X2 cm.

Spindle shaped cells with eosinophilic cytoplasm and small round nuclei mostly with cystic dilatation and also branching were seen at microscopic examination. Ductal structures were found in some areas. They were lined by two layers of epithelial cells. Abundant, mucoid and faintly basophilic stroma was seen around the tumor cells. Tumor cells did not show any cytological atypia and carcinomatous feature. There was mix inflammatory infiltration without atypical cytology around tumor cells within mucinous stroma but there wasn't any inflammation at surface epithelium and stroma. (Figure 1,2,3,4,5)

Hematologic results were normal. There was not found any abnormality to explain inflammatory infiltration at stroma of the tumor. So this morphologic structure was considered as a feature of the stroma. Tumor was well circumscribed from the peripheral stroma.

DISCUSSION

Chondroidsyringoma is rare tumor that incidence is reported less than 0,01% of primary skin tumors. Clinical presentation

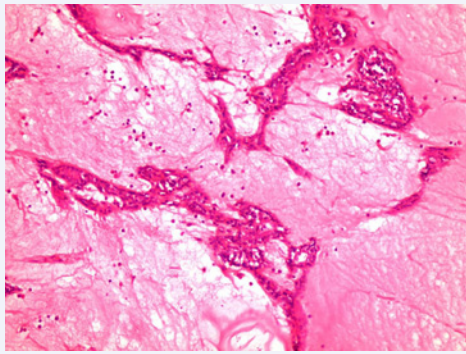


Figure 1 Tubular lumina and small aggregates of epithelial cells within mucoid stroma H&E X100.

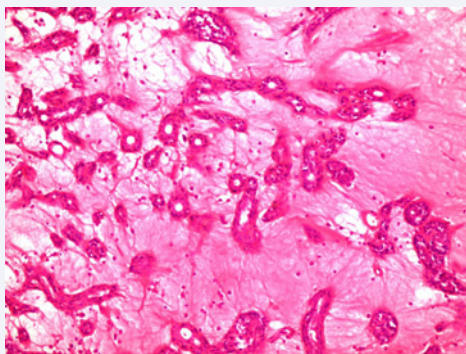


Figure 2 Tubular lumina were lined by two layers of cells H&E X40.

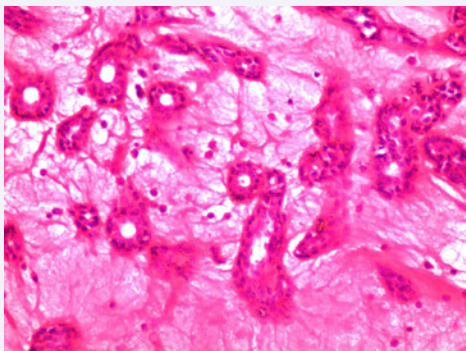


Figure 3 Tubular lumina were lined by two layers of cells H&E X100.

of chondrosyringoma is painless, firm subcutaneous nodule, which measures 0.5-3 cm in diameter [2].

It is generally encountered at the head and neck region. Infrequently chondrosyringoma is seen on the hand, foot, axillary region, abdomen, penis, vulva and other sides [2]. Chondrosyringoma in scrotum was described rarely in the literature. The last one was defined by Hidenobu *et al.* in 2008 [1]. Chondrosyringoma cases in the literature are not much, so the knowledge about clinical aspect of scrotal lesions is very limited. The tumors which described previously in literature constitute painless mass, average time for elective operation was 7.9 year; average size of tumors was 42 mm [1]. Recurrence

was not seen at follow up of any one of eight chondrosyringoma cases. We found eighth scrotal chondrosyringoma case in the literature. Present case was measured 25 mm in size and time for elective operation was 15 years.

Chondrosyringoma is mixed tumor of the sweat gland which are composed of both epithelial and mesenchymal components [2,3]. It was reported first time by Nasse in 1892 [5]. Hirsch and Helwing reported in 1961 that chondrosyringoma originates in the apocrine sweat glands, which consisted of both glandular elements and stroma [6]. They described histopathological characteristics of the tumor as nests of cuboidal, polygonal cells, tubule-alveolar structures, lined with two or more rows of cuboidal cells, ductal structures, keratinous cysts, a matrix of varying composition [6].

Chondrosyringoma shows well circumscribed, painless mass clinically. Histological characteristic of chondrosyringoma is mixed epithelial and mesenchymal elements, tubule and cord structures which consist of epithelial cells with two rows and myo-epithelial layer [7,8]. Tumor stroma has a myxoid or chondroid appearance [2]. Immunohistochemically study shows cytokeratin, vimentin, S100 protein positivity in

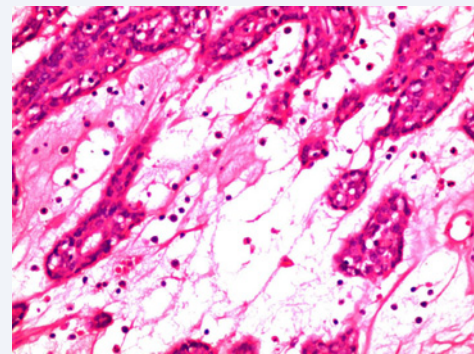


Figure 4 Mixed inflammatory infiltration around of the tubular structures H&E X200.

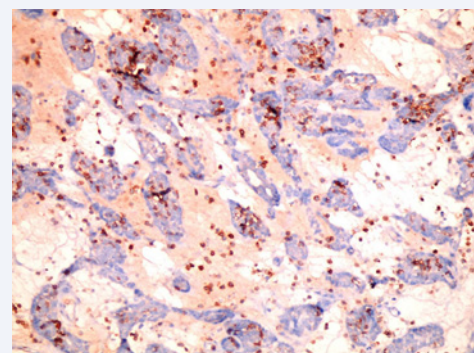


Figure 5 Inflammatory infiltration within tumor stroma, positive reaction for LCA X100.

Immunohistochemically inner layer cells of the ductus were positive for pancytokeratin, CEA and outer layer cells were positive for vimentin, S100 protein and other myoepithelial markers, such as α SMA and P63. Some vimentin positive stromal cells were seen in the tumor stroma. (Fig6,7,8,9)

chondroidsyringoma[2,7]. Immunohistochemically inner layer epithelial cells express cytokeratin, CEA, EMA, outer layer cells express vimentin, S100 protein. Tumor stroma is focal positive for cytokeratin, vimentin,S100 protein [2,7].

In our case there were tubular and ductal structures fitted with double lined cell layer within the mucinousstroma. Immunohistochemically inner epithelial tumor cells were positive for cytokeratin, outer layer of epithelial cells were positive for vimentin and S100 protein. Tumor stroma was focal positive for all three markers. Also mix inflammatory infiltration within stroma of the tumor was detected which includes lymphocytes,

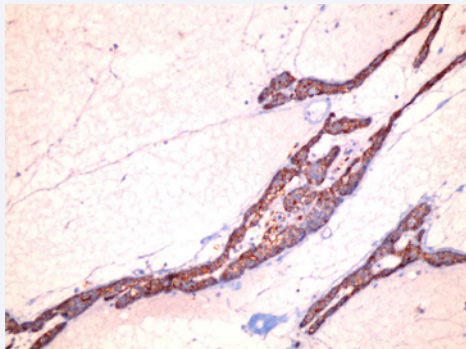


Figure 6 Ductal inner layer cells positive for CEA X100.

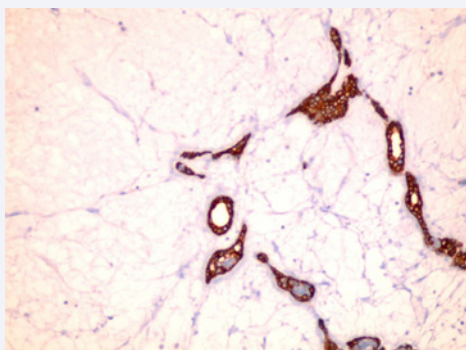


Figure 7 Inner layer cells of the ductus positive for cytokeratin CK X100.

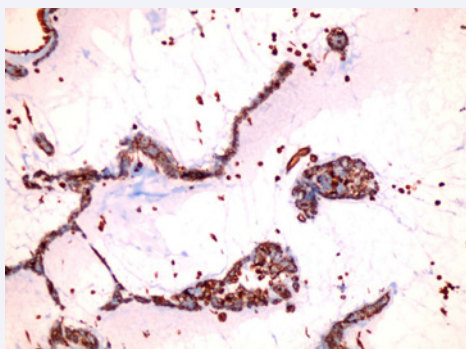


Figure 8 Outer layer cells and a few stromal cells positive for vimentin X100.

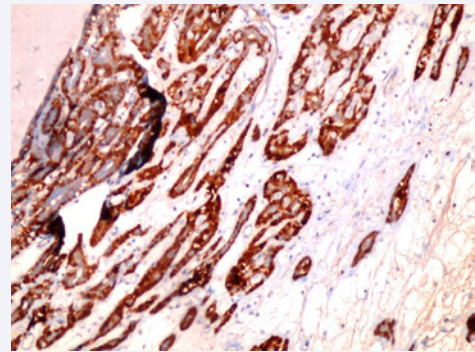


Figure 9 Outer layer cells positive for S100 X100.

The case diagnosed as chondroidsyringoma, after clinical and histomorphologic findings evaluated. The mass totally excised. There was no relapse within one year follow-up.

eosinophils and plasma cells. All of inflammatory cells were mature without atypia. There was no inflammatory infiltration either peripheralstroma or surface epithelium of the tumor. We couldn't found this histologic feature for chondroidsyringomain the literature. Biochemical and hematologic analysis of the patient were normal. We couldn't found any etiologic factor to explain inflammatory infiltration of stroma of the tumor. So this morphologic structure was considered as a feature of the stroma of the tumor.

The differential diagnosis for scrotal chondroidsyringomaincludes other epidermal appendages tumors, both malign and benign and also lipomas, lymphangiomas,hemangiomas, neurofibromas, testis tumors and other scrotal masses [1,2]. Radiological event, biochemical analysis and other clinical features don't help to diagnose to chondroidsyringoma.

The diagnosis is made on histological examination. First treatment choice is complete excision with surgical margin for this tumor.Incomplete excision or incisional biopsy could increase the risk of recurrence [2].In our case the mass totally excised. There was no relapse within one year follow up.

Although chondroidsyringoma is a benign tumor, rare cases of malignant chondroidsyringoma have been reported.Malignant forms are seen more frequently on the trunk and extremities and usually larger than 3 cm [2,9]. Cytologicalatypia, necrosis, infiltration into the surrounding tissue occur in malignant forms [9].Chondroidsyringoma must be follow regularly because of the risk of malignancy and recurrence [1,2,9].

CONCLUSION

Chondroid syringoma of the scrotum is very rare. However it should be considered as differential diagnosis when suspecting scrotal tumor. It should be remembered that we can see mix inflammatory infiltration within tumor stroma. It can be a specialty of the stroma of the tumor.

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