

Median Raphe Cyst of the Scrotum in an
Adult PatientÇalışkan S^{1*}, Sungur M¹ and Baş Y²¹Department of Urology, Hitit University, Turkey²Department of Pathology, Hitit University, Turkey

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*Corresponding author

Çalışkan S, Bahçelievler Mah. Çamlık
Sok No:2 Çorum, Department of Urology,
Hitit University, Turkey,
Email: dr.selahattin@gmail.com

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Abstract

Median raphe cysts may occur at any site along the midline of the ventral side of the male genital area between the meatus and anus. The cysts are usually asymptomatic in childhood and may progress later and become symptomatic during adolescence and adulthood. The most common location of the cysts is penile shaft and paramental position, glans penis and scrotum is very rare. We present a case of median raphe cyst of the scrotum in an adult patient who was treated with surgical excision.

Introduction

Median Raphe Cyst (MRC) is a rare congenital cyst which may present anywhere between the tip of the penis and the anus [1]. Most of the MRCs are congenital and found in childhood [2]. Abnormal or incomplete development of the paired genital folder is the main cause of this pathology. Here in we report a case of scrotal median raphe cyst in an adult patient presenting palpable mass.

Case Presentation

A 54 year old male presented with complaint of swelling scrotal lesion during the one year. The patient had no history of trauma and other remarkable medical history. In physical examination, 2.5x2 cm palpable mass was found in the middle of the scrotum (Figure 1). Surgical excision and primary closure were performed. In the histopathological examination, the pathologist reported that the cyst was covered by normal skin and had no communication with the epidermis, eccrine sweat glands, hair follicles or sebaceous glands. The cyst was unilocular and there was no glandular structure in the wall of the cyst. The cyst was lined mainly by a double layer of columnar epithelium but in some areas were lined by cuboidal to columnar cells with transitional cells. Decapitation secretion and mucinous cells were observed focally and these cells were positive for Alcian Blue. The unusual observation was the presence of dendritic melanocytes among the epithelium cells. There was no atypia within the epithelial lining (Figure 2). Immunohistochemical studies demonstrated that the epithelial cells were strong positive for CK 7. Dendritic melanocytes were positive for Melan-A (Figure 3), HMB45 and S100. CEA immunoreactivity occurred at the apical border of the luminal cells. Scattered cells were positive for GCDFP-15 but CK20 and SMA were negative throughout. The patient was discharged on the second postoperative day and has no complaint and recurrence in the follow-up period of six months.

Discussion

Median raphe cysts may develop along the median raphe of the male external genitalia [3]. The cyst can be localized at anywhere on the ventral side of the genital area such as para-meatus, glans penis, penile shaft, scrotum or perineum [3]. The cyst should be distinguished from other genital lesions such as the glomus tumor, dermoid cyst, pilonidal sinus, epidermal inclusion cyst, urethral diverticulum and steatocystoma [3]. Median raphe cysts usually present at birth, but in some cases, the cyst may remain asymptomatic and can be diagnosed in adulthood period. Shao et al. [3] demonstrated that the patients were presented with a mean age of 26, 7 years (range: newborn to 66 years) with a bimodal presentation.

According to the histopathological examinations, MRCs can be classified into 4 groups; urethral, epidermoid, glandular and mixed [3]. The urethral type is the most common that accounts 55% of all cases. The second most common type is mixed type that consists more than one type of epithelium; urethral epithelium with partial squamous metaplasia, urethral epithelium with scattered or isolated mucinous cells or all 3 occurring simultaneously.

The optimal treatment is excision of the lesion [3]. Spontaneous regression of the lesion has been reported [4], observation can be considered for the patients who hesitate to surgery and small, asymptomatic lesions [3]. Additionally aspiration is not recommended for treatment of the MRCs.

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Figure 1: Localization of the scrotal cyst in the operation.

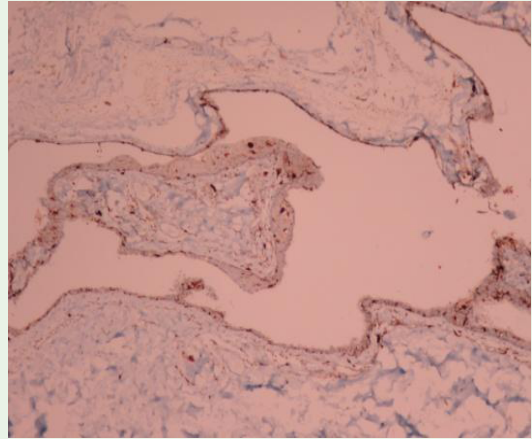


Figure 3: Dendritic melanocytes were positive for Melan-A (x10).

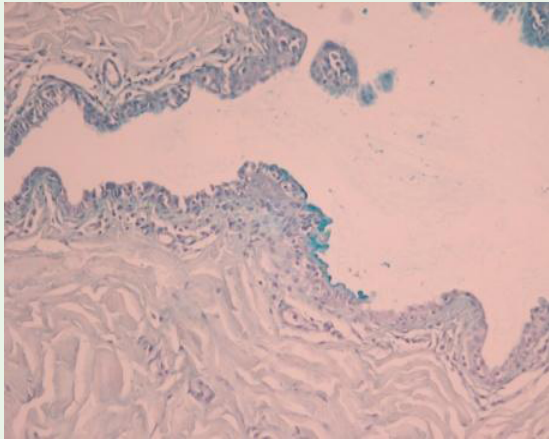


Figure 2: Positive staining of Alcian blue of epithelial cells (x10).

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