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Case Report

Pathology Section

Twenty Scrotal Nodules of Idiopathic Calcinosis: A Case Report

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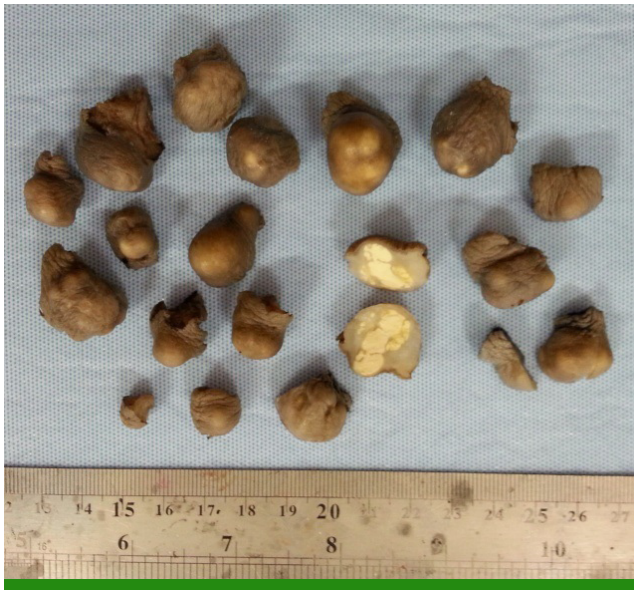
ABSTRACT

Scrotal calcinosis, a rare and benign disease, was first described by Lewinski in 1883. The term idiopathic scrotal calcinosis (ISC) was first used by Shapiro in 1970. The pathogenesis of the condition is unclear and remains controversial. ISC is characterized by solid scrotal nodules that are single or multiple, occasionally painless and calcified. Most frequently it occurs in the 20-40 year old age group. However, there are 9 and 85 year old reported cases, too. Here, we report a 38 year-old ISC case in order to emphasise the importance of differential diagnosis of this rare, benign condition from the other scrotal masses.

Keywords: Idiopathic calcinosis, Scrotal calcinosis, Scrotal nodules

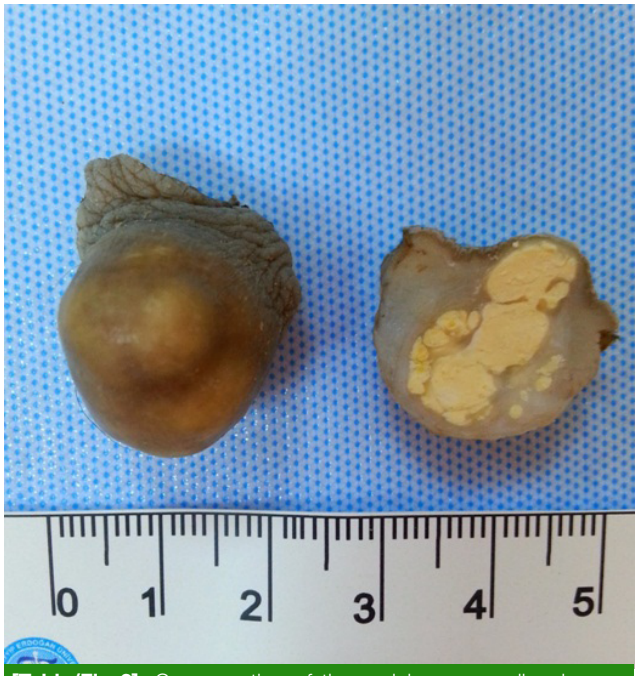
CASE REPORT

A 38-year-old man was presented with multiple scrotal nodules have caused pruritis and physical deformity. The nodules were present for 20 years but had increased in the last five years. Physical examination revealed multiple nodular lesions which are painless and non-firm with palpation, all over the scrotal skin. There's no scrotal trauma history or any other previous local or systemic disease in patient's past. Serum electrolytes, uric acid and parathyroid hormone were normal. The lesions were thought as a benign neoplasm. Dermoid cyst and lipoma were thought for differential diagnosis. Patient was operated and the excised lesions were send to pathology laboratory.

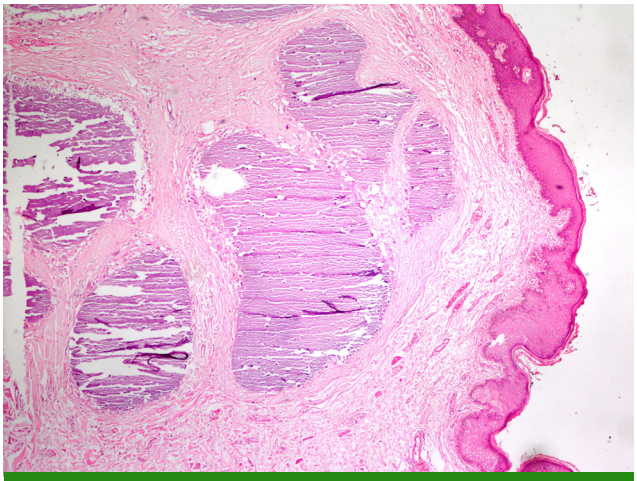


[Table/Fig-1]: Gross examination of scrotal nodules

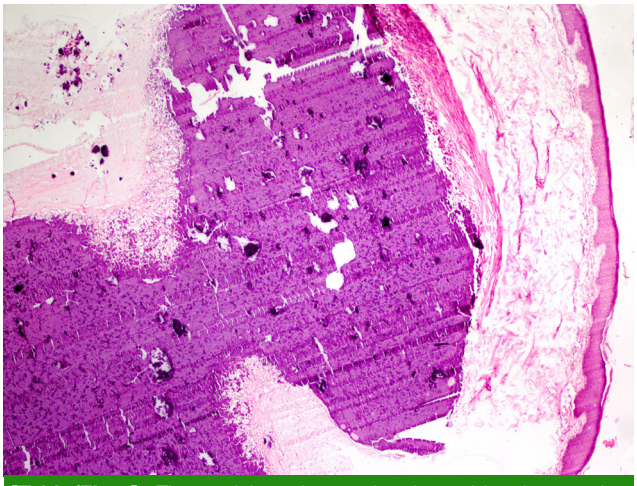
The macroscopic examination revealed yellow-brown coloured 20 nodules that contain skin and subcutaneous tissue [Table/Fig-1]. The lesions were measured ranging from 2.5x2x1.3 cm to 0.6x0.5x0.3 cm. Cross section of the lesions were yellow-brown-colored and show some firm focus [Table/Fig-2]. Microscopically, epidermal thinning in scrotal skin and multiple varied sized nodules that contain amorphous basophilic material in the dermis were observed [Table/Fig-3-5]. True cysts, cyst remnants, epithelial lining, foreign



[Table/Fig-2]: Cross section of the nodules were yellow-brown-colored and show some firm foci



[Table/Fig-3]: Multiple, varied sized nodules that contain amorphous basophilic material (calcium) in the dermis.(H&E, x40)



[Table/Fig-4]: The nodule: that under the epidermis contains amorphous basophilic material (H&E, x100)

[Table/Fig-5]: One month after the surgery, the appearance of the scrotal skin

body reaction, giant cells or inflammation were not seen and there was no findings as pleomorphism, mitosis which could thought a malign condition. The case was diagnosed as ICS with these histopathological findings.

DISCUSSION

ISC is a rare benign disease that characterized by multiple calcified nodules on scrotum skin and it was described by Lewinski in 1883 [1] . The pathogenesis is controversial and unclear yet, but some authors thought the etiology of ISC may be associated with calcified epidermal cysts or dystrophic calcification of dartos muscles or it is a multifactorial process [1-8]. ISC is characterized by solid or multiple, occasionally painless, usually calcified scrotal nodules and only treatment of ISC is surgical excision [3-5]. We aimed to as a rare, benign condition ISC, could be kept in mind for the differential diagnosis of scrotal skin mass.

ISC is a rare benign disease which characterized by multiple calcified nodules on scrotal skin. Generally, it is seen during late childhood or early adulthood, the patient is 38-year-old and that is compatible with the literature. Etiopathogenesis of ISC is still controversial. Some authors think that it is totally an idiopathic disease and the others think, it develops from calcified and degenerated epidermal cysts or it arises with dystrophic calcification of dartos muscles [1-4]. Some authors suggested ISC related to eccrine cysts of scrotum or may be multifactorial [9-12].

Browne [6] reported scrotal calcinosis in onchocerciasis cases. So, ISC may be a reactive process is related to parasitic or other inflammatory diseases. Veress and Malik, [7] reported foreign-body giant cell around the calcified nodules and granulation tissue in their study which contain six cases. Akosa et al., [8] and Saad and Zaatari, [9] thought scrotal calcinosis develops from dystrophic calcification and inflammation of epidermal cysts. Shapiro et al., [5] had not found any epithelial lining around the calcified nodules or cysts remnants in their study which contain 13 cases. In our case there were evidences neither for cyst remnants nor inflammation and foreign body giant cells around the nodules, too. Thus, this case supports and show that scrotal calcinosis may be an idiopathic process.

Only treatment of ISC is surgical excision. The diagnosis is confirmed by histopathological examination of the exicion material. In some cases fine needle aspiration cytology may be useful for the diagnosis [13]. Recurrence after surgery is not usual in scrotal calcinosis but Salvarci and Altinay et al., [10] and Sugihara et al., [11] reported some recurrent cases. In this case, after surgical excision there has been no evidence for recurrence since nine months. The patient tolerated the surgery well and a good esthetic result was obtained. As a conclusion, we aimed to that; as a rare, benign disease ISC could be kept in mind in the differential diagnosis of scrotal skin nodules. In these cases histopathological examination is necessary to confirm the diagnosis and exclude malignant conditions.

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