

Relapsing idiopathic scrotal calcinosis

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Abstract

Idiopathic scrotal calcinosis is a rare and benign disease of the scrotum which is described in all age groups. It was initially first defined by Lewinski in 1883. Although many mechanisms have been proposed in the pathogenesis, underlying mechanisms are still controversial at the present time. Currently, the best therapeutic approach is the surgical removal of the scrotum without disrupting its integrity. Although it is indicated in literature that its recurrence is still controversial, we have observed relapse two times in our 41 year-old male patient following surgery at the 19th and 33rd months. We have confirmed recurrence with clinical and pathological assessments. Idiopathic scrotal calcinosis may recur both clinically and pathologically in the long term follow up. Recurrence should be confirmed with post-surgical long term follow up in larger series.

Keywords: Idiopathic, Scrotal calcinosis, Relapsing, Nux.

Introduction

Idiopathic scrotal calcinosis is a rare and benign skin condition characterized by multiple, calcified, painless, hard and asymptomatic nodules without any dysfunction in the phosphorus and calcium mechanism.¹ There are patients being monitored in the childhood and early childhood ages with a nodule diameter varying between 2-5mm up to 2cm. Although many hypotheses are claimed in the pathogenesis, there is still no clarity about this issue.² Our case is a 41-year old patient with many palpable masses in the scrotum since 10 years, clinically and pathologically diagnosed with scrotal calcinosis in whom the disease relapsed after surgery.

Case Report

The 41-year old patient, who came with scrotal lumps occurring since nearly 10 years, recorded that the lumps grew slowly, that 2-3 lumps appeared at the same time and that they were hard and painless. There was no history of trauma or sexually transmitted disease. There were no drugs used due to diabetes or any other

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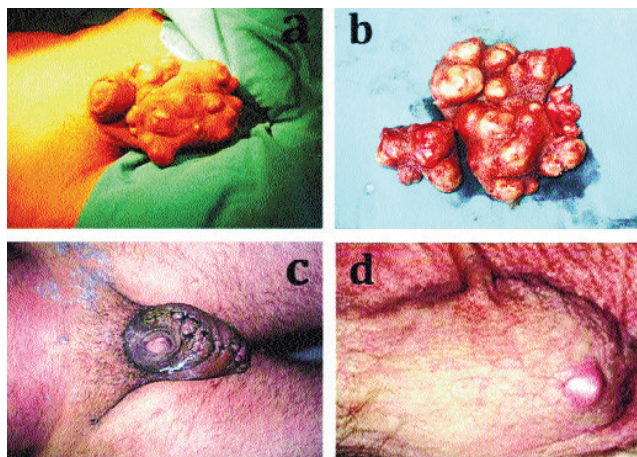


Figure-1: (a) Multiple nodules on scrotal skin. (b) Postoperative excised specimen. (c) Appearance of the scrotum post-operatively. (d) Relapsing nodule.

comorbidity. The blood count, serum calcium, phosphorus, parathyroid hormone, calcitonin and 25 OH Vitamin D levels were normal. Approximately 33 notable and yellowish hard nodules were observed in a diffused manner in the ventral area of the scrotum during the scrotal inspection (Figure-1a). The widest nodule was measured as 2.5cm. in diameter. The lesions were not ulcerated and sensitive. Significant resistance was encountered in the fine needle aspiration. During aspiration, 0.2 cc of white coloured material was obtained with difficulty in the injector. Amorphous basophilic calcified material was observed in the smears treated with Mayi-Grunwald Giemsa (MGG) stain (Figure-2a). The scrotum skin was preliminarily diagnosed as scrotal calcinosis containing nodules, was excised under local anaesthesia (Figure-1b). In the histopathological assessment of the excised material, diffuse calcified cystic areas within the fibrohyalinated stroma beneath the epidermis and foreign body reaction caused by occasional histocytes and giant cells were observed (Figure-2b-d). No deformity occurred in the appearance of the scrotum post-operatively (Figure-1c). Although no relapse was observed in the post-operative follow-up of 12 months, relapse was seen in the 19th month (a nodule of appr. 8mm) and 33rd month pursuant to the surgical excision (Figure-1d).

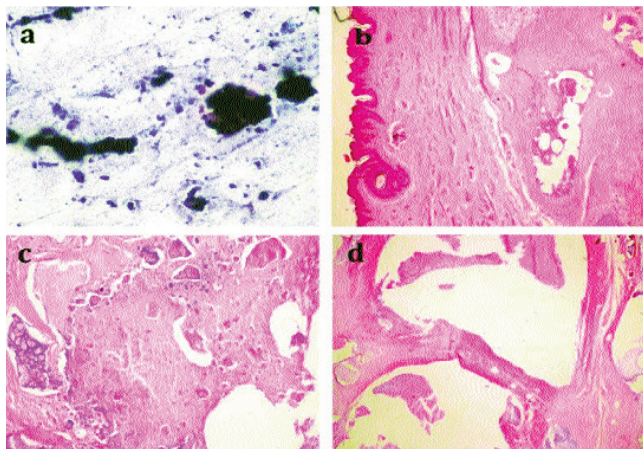


Figure-2: (a) Amorphous basophilic calcified material in FNAC with MGG stain. (b;x4) Calcified intradermal nodule lacking an epithelial lining. (c;x10) Original magnification of the same nodule composed of basophilic calcified material without epithelial lining showing amorphous form. (d;x20, haematoxylin and eosin staining) Diffuse calcified cystic areas within the fibrohyalinated stroma.

Discussion

Idiopathic scrotal calcinosis is a benign condition characterized with calcified deposits surrounding the granulomatous reaction of a foreign entity.¹ It is clinically composed of yellow-coloured hard nodules of various diameters. Generally, scrotal nodules grow slowly throughout the years and increase in number. In addition to being observed frequently at the ages of 20-30, these benign scrotal lesions have also been reported in case at adult and paediatric age groups at an age interval of 9 to 85 years.² All of these cases were first diagnosed by Lewinski in 1883.³ As complaints such as itching or purulence are not observed, they are noticed at a late phase by the patients. No clear mechanism has been revealed in the studies conducted until today about its pathogenesis. The possibilities are dystropy of pre-existing epidermal cysts, eccrine duct milia, eccrine epithelial cysts and degenerated dartoic muscles. All immunohistochemical and histopathological studies demonstrate that scrotal calcinosis is still idiopathic.¹⁻⁵

In the follow-up of our case during the period of nearly 14 months spanning from the day the patient came to the time we decided to conduct surgery, we observed that

minor nodules were formed in addition to those detected in the first examination and that these nodules grew from 3 ± 1 mm. to 8 ± 1 mm. in a period of 3 months. We performed partialscrotoectomy on the patient. All of the hard nodules were excised without any complications.

During the period of 12 months pursuant to surgery, no relapse was observed, but, despite the normal scrotal healing, a hard nodule was seen again in the 19th month in the scrotum which was excised. Again pursuant to this last nodule, a new hard nodule was described in the 13th month and that nodule was also excised. The pathological assessment of the excised nodules which had emerged in the 19th month and consequently in the 13th month matched with scrotal calcinosis. Although no relapse was observed by other researchers,⁵ relapse was observed 2 times in our patient. In the physical examination performed when excising the first nodules surgically no hardness or lesion was observed in the other areas of the scrotum. Although 3 years elapsed since the last excision in the patient, who is still being followed up, no relapse has occurred yet.

Conclusion

Idiopathic scrotal calcinosis is a benign mass with a debatable pathogenesis. The best therapeutic approach is the surgical excision of the masses. Surgery is required also from an aesthetic perspective. Although its recurrence is debatable, relapse has been observed in our patient twice both clinically and pathologically.

Note: Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

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