Idiopathic scrotal calcinosis: A dermatosurgical disease

Bhavinder Arora

ABSTRACT

Introduction: Idiopathic scrotal calcinosis is a dermatosurgical disorder affecting the scrotal skin and needs surgical excision. It is characterized by multiple calcified nodules on the scrotal skin. It is limited to scrotal skin and has been classified under calcinosis cutis. Although considered to be a metabolic disorder, the serum calcium remains normal in all patients. Scanty reports of idiopathic scrotal calcinosis are available in literature.

Case Report: We report one such case of idiopathic scrotal calcinosis in a 65-year-old male, presenting with multiple painless nodules which were yellowish white and painless involving whole of scrotum. This patient was treated with surgical excision of the involved skin.

Conclusion: This case report conveys the message that idiopathic scrotal calcinosis presentation can be large involving whole of scrotum. The picture is classical not to be confused with multiple sebaceous cysts of scrotum.
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Keywords: Calcinosis, Scrotum, Idiopathic calcinosis

INTRODUCTION

Idiopathic scrotal calcinosis is a rare and benign disease of the scrotal skin [1]. It is defined as the presence of multiple calcified and asymptomatic nodules in the scrotal skin [2]. The main controversy concerns the pathogenesis of the scrotal calcinosis [3–6]. Some authors think that it is result of dystrophic calcification of preexisting structures such as epidermal/sebaceous cyst [7], while others did not find any evidence of such preexisting disease and believe it as an idiopathic condition [8].

Histopathologically, it is characterized by presence of calcium deposits within dermis surrounded by a foreign body-type granulomatous reaction [3]. Despite the controversy about the origin of this entity, surgery is the treatment of choice.

CASE REPORT

A 65-year-old male farmer by occupation, presented with multiple, painless nodular lesion on the scrotum that had gradually increased in size and number during...
the last eight years. The swelling was single and cystic to begin with that first increased in number followed by change in character from cystic to hard swelling that continues to increase till date. There was no history suggestive of metabolic, systemic, endocrine, neoplastic or autoimmune disease. Patient never experienced any local scrotal disease like trauma, infection or inflammation. General physical examination was normal. Local examination revealed multiple painless nodular swellings yellowish white in color, ranging from 1 to 5 cm in scrotal skin without any area of ulceration or discharge but had some focal areas of calcified lesions. Bilateral testes and penis were normal. Routine laboratory examination was normal. Under spinal anesthesia nodules and involved scrotal skin was excised with primary repair of scrotal skin. Postoperative course was uneventful and cosmetic results were good. Histopathological examination confirmed the diagnosis of calcinosis cutis.

DISCUSSION

Scrotal calcinosis is a rare and benign condition first described by Lewinski in 1883 [3]. It mainly appears in men aged 20–40 years age youngest being nine years and oldest being 85 years [6]. Clinically, it consists of hard yellowish white nodules within the dermis of scrotal skin. Nodules may vary in size from 1–3 cm and are usually asymptomatic. Patients usually present late in the course in Indian scenario because of social stigma and seek help mainly for cosmetic reasons. The pathogenesis of scrotal calcinosis is unclear and controversial. The most widely accepted classification of calcinosis cutis describes three types: metastatic, dystrophic and idiopathic. Metastatic calcinosis is secondary to hypercalcemia or hyperphosphatemia. Dystrophic calcinosis occurs in the dermis in which elastic fibers have been damaged. It occurs in cutaneous tumors, cysts, local trauma, burns and frost bite. Idiopathic calcinosis is used for cases in which the cause is obscure. It can be localized as in familial tumoral calcinosis, subepidermal calcified nodule, dermal calcinosis and idiopathic calcinosis of scrotum, or generalized called calcinosis universalis [9–19].

Idiopathic scrotal calcinosis is a rare clinical entity affecting the scrotal skin [19] with its counterpart vulvar calcinosis in females which is still more uncommon [11, 18]. On clinical examination, multiple hard yellowish white nodules that vary in size from 1 mm to a few centimeters, solitary or multiple, can present on scrotal skin [3]. Although these nodules are asymptomatic, itching can be predominant symptom or may discharge a chalky material. A few patients can present with prostatitis like symptoms or dysuria [19]. Clinical presentation in our patient was asymptomatic. The interval between the onset of disease and treatment may be several years. This interval was about eight years in this case.

The scrotal calcinosis is idiopathic or may be result of calcification of pre existing cyst remains controversial [3]. However, degeneration and necrosis of dartos muscle is followed by dystrophic calcification in genesis of scrotal calcinosis has been suggested by King et al. [8]. A case of scrotal calcinosis originating from eccrine epithelial cyst was reported by Ito et al. [9]. Scrotal calcinosis may be truly idiopathic [1] with normal serum calcium levels [19].

The treatment of this benign condition is for cosmetic reasons or itching. Surgical excision must be limited to scrotal skin since nodules are limited to dermis only [2]. Surgical excision is the only remedy with high probability of recurrence of scrotal calcinosis. In our case, adequate surgical excision of diseased scrotal skin was done, but with short follow up of three months, there is no recurrence till date.

CONCLUSION

Scrotal calcinosis needs identification clinically, to be differentiated from multiple sebaceous cysts of the scrotum. It may be calcium metabolism error or extravasations of calcium into skin. The extraordinary large size of disease can involve whole of scrotum. The diagnostic dilemma can be avoided by careful examination only.

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Author Contributions
Bhavinder Arora – Substantial contributions to conception and design, Acquisition of data, Analysis and interpretation of data, Drafting the article, Revising it critically for important intellectual content, Final approval of the version to be published

Guarantor
The corresponding author is the guarantor of submission.

Conflict of Interest
Authors declare no conflict of interest.
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