CASE REPORT

An Extensive Idiopathic Scrotal Calcinosis : A Case Report

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ABSTRACT

Idiopathic scrotal calcinosis is a rare condition developing in scrotum of young individuals due to deposition of calcium and phosphorus in scrotal wall. These lesions cause a social stigma for the patients in Indian society and also due to their indolent nature, these patients present usually after a decade of appearance. The diagnosis is histology based and management is excision of scrotal skin with multiple ways of closure like primary closure, grafting, thigh pouch reposition and pedicled inguinal flap. Hereby, we present a case report of a young male affected by idiopathic scrotal calcinosis that was managed by surgical excision and primary closure.

Key Words : idiopathic scrotal calcinosis, surgery, histology

INTRODUCTION

Scrotal calcinosis is a rare and benign condition, which develops in young individuals. It is considered to be idiopathic in nature, while some authors consider it to be due to dystrophic calcification in epidermal inclusion cysts. The calcium and phosphorus levels in the blood are within normal limits. Histology defines the disease. Management includes surgical excision with primary closure, split skin grafting, thigh pouch or pedicled inguinal flaps. Hereby, we present a case report of idiopathic scrotal calcinosis in a young male along with review of literature.

CASE REPORT

A 25 year old gentleman presented with small multiple painless small nodules over scrotum which progressively increased in size and number since more than a decade. The patient had no itchiness in the swellings or any discharge through them. The patient had no history of scrotal trauma, any ulceration over penis or any inguinal swelling. The patient denied history of multiple sexual partners as well as any family history of similar disease. The patient was sexually active but was also embarrassed about the increasing number of swelling, which made him show up to the hospital. On examination, multiple palpable yellow to brown nodules of an average size of 1 to 2 cm were seen on anterior and lateral parts of both hemi scrotums. They were all firm in consistency, well defined and separate from each other. No tenderness was present in the nodules. Both testes were palpable separately from the scrotal skin and the swellings and scrotal wall could be moved easily over the testicles. There appeared no deformity in the penis. Ultrasonography of the local part revealed testes of normal consistency without free fluid in the tunica vaginal sac. Laboratory evaluation revealed normal serum phosphorus and calcium level. Resection of involved scrotal skin with primary closure of the healthy scrotal skin was performed. Preoperative photograph is shown in figure1. Postoperative photograph after 10 days is shown in figure 2. Histopathology report came out to be

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multiple nodules made up of amorphous basophilic calcified material surrounded by foreign body giant cell reaction. There was no evidence of epithelial lining, residual cysts, lipid, or organisms in any section. There were no postoperative complications to date, and the patient had an excellent scrotal cosmetic outcome.

DISCUSSION

Idiopathic scrotal calcinosis is a rare but benign disease of the scrotal skin that presents with solitary or multiple calcified nodules. The disease was believed to be truly idiopathic since no cellular elements, cysts, lipid, or organisms were found within the calcified nodules. However, Saad and Zaatari et al showed that idiopathic scrotal calcinosis develops from dystrophic calcification of the epidermoid cysts, epithelial wall, and keratin fibers[1,2].

The first case of idiopathic scrotal calcinosis was described by Lewinski in 1883, and the disorder was named by Shapiro et al in 1970[2].

Most presentations occur in mid-thirties, without any calcium/phosphorus imbalance[3]. Scrotal calcinosis mainly affects male, but similar lesions (vulvar calcinosis) have been reported in female[4]. The nodules are typically yellow to brown in color containing calcium and phosphate deposits in the scrotal skin. The nodules are usually firm, separately palpable from each other and asymptomatic, but could be itchy. The larger lesions may cause a heavy sensation, whereas some of the matured nodules may ulcerate to produce a white, chalky, and sand-like material. The reason for a medical consult is typically cosmetic. Hicheri et al. reported rapidly evolving variant which occurred within 3 months[5]. However, the disease usually takes an indolent course, developing over several years as in our case.

Evaluation is based largely upon history and physical examination. X ray may show calcified lesions around the scrotum, but is not confirmatory.

Surgery has been the only recommended mode of treatment for idiopathic scrotal calcinosis. The indications for surgical excision include cosmetic concerns, severe pruritus, and ulceration[6]. The excision is limited to scrotal skin because the nodules are localized in the dermis of the scrotum[7]. If the defect in scrotal wall is small, secondary suturing with little mobilization of the scrotal wall can close it. Larger defects can be covered with split thickness skin grafting but the normal feel of moving of testes inside the scrotum cannot be achieved as graft lies directly on the bare testes. In case of total excision of the scrotal wall testes can be placed in the thigh pouch created on the medial side of the thigh. Testes are protected from the trauma by this method but it is cosmetically unacceptable for patient. In cases where above techniques are not feasible, pedicle inguinal flap technique for the coverage of bare testes can be employed which provides better cosmetic results than skin grafting and inner thigh pouch implantation of testes[8].

Clinical diagnostic confusion may arise from other scrotal lesions such as multiple neurofibromas, steatomas, calcified lipomas and fibromas. Biopsy for histological examination is necessary to differentiates scrotal calcinosis from such lesions[9], confirmed by the presence of Von Kossa positive dermal deposits[7].

Men will often ignore the presence of these cysts as these are generally painless and also due to social stigmata. Even though scrotal calcinosis is a benign condition, it is important to let patient know about the possibility of recurrence[10]. Recurrence may be due to left over microscopic foci of calcification. Mahmood Molaei et al suggest the use of Vitamin A and local steroids to prevent recurrence[11].

In conclusion, idiopathic scrotal calcinosis is a rare benign disease which presents with multiple asymptomatic various sized nodules on the scrotal skin wall. Pathogenesis is still debatable, with a majority favoring dystrophic calcification of the epidermal inclusion cysts. Surgical treatment can achieve good outcomes.

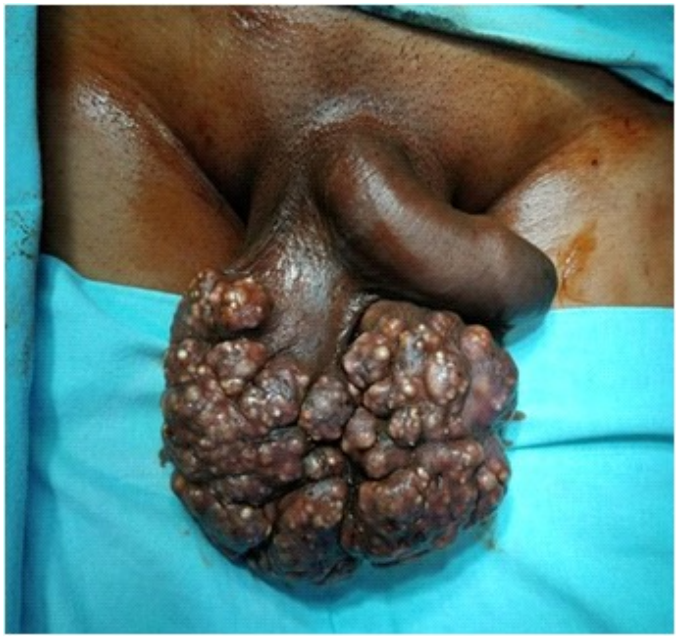

FIGURE 1

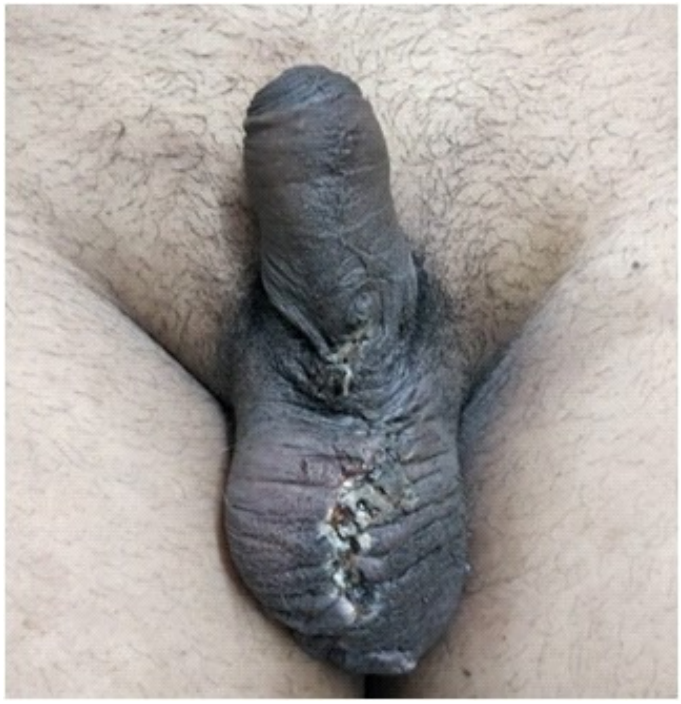

FIGURE 2

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