Case Report

Idiopathic scrotal calcinosis – A case report

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Abstract:

Idiopathic scrotal calcinosis is a rare benign entity of the scrotal skin which is characterized by multiple calcified nodules in the scrotal skin.In most cases it is asymptomatic and misdiagnosed as epidermoid cyst. We report a 59-year old with asymptomatic multiple hard scrotal nodules. .this was surgically removed and sent for histopathological examination. Histologically, it showed multiple foci of calcification beneath the skin and no cystic structure. Therefore our case was diagnosed as Idiopathic scrotal calcinosis .

Key words-calcinosis,idiopathic, scrotum

Introduction

Idiopathic scrotal calcinosis is a rare benign entity of the scrotal skin characterized by multiple calcified intradermal nodules that occur in the presence of normal calcium and phosphate metabolism. The nodules begin to appear in childhood or in early adult life, increase in size and number and sometimes break down to discharge their chalky contents.[1] This disease was first described by Lewinsky as a subtype of calcinosis cutis.[2] The pathogenesis of scrotal calcinosis is still controversial.

Case report

59 years old male presented with multiple slowly growing painless scrotal swellings since 2 years.He had no systemic symptoms and there was no history of trauma .His serum calcium and phosphorus levels were within normal limits.Cinically it was diagnosed as sebaceous cyst.Hence it was surgically removed along with scrotal skin and sent for histopathological examination.

Grossly,the specimen consisted of scrotal skin with 5 nodules,largest measuring 3.5x3.5x2.5 cms and smallest measuring 1.5x1x1 cms.cut surface revealed multiple firm ,chalky white nodules.

Microscopically,the epidermis was hyperplastic and the dermis showed multiple foci of calcification .There was no evidence of inflammation,necrosis, foreign body giant cell reaction,lymphatic obstruction and cytological atypia

Despite a careful search no keratinous material,cystic spaces and preexisting duct like structures or predisposing cause of calcification could be demonstrated within the foci of calcification.

Discussion

Idiopathic scrotal calcinosis is a rare and benign condition, first described by Lewinsky as a subtype of calcinosis cutis in 1883. [2]

This benign scrotal lesion, though commonly occurs between third and fourth decades of life, can affect both adult and paediatric age groups with age range between 9 to 85 years reported in the literature[3]

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Scrotal calcinosis is more common in dark coloured race[4] and affects mainly male but similar lesions (vulvar calcinosis) has been reported in female[5]

The disease usually takes an indolent course, developing over several years as in this case[6]. Most patients are asymptomatic and present because of cosmetic concern. Few patients may present with pruritus, ulcerations, and discharge of chalky material with occasional superimposed secondary bacterial infection. Our case also was a 59 years old male who presented with multiple scrotal swellings since 2 years.

Pathogenesis still remains elusive and continues to be debated. Many authors proposed that dystrophic calcification of preexisting lesion like epidermal cyst[2, 7–9], eccrine duct milia[10], degenerated dartos muscle as the underlying aetiopathogenesisof this disease. Dubey et al. suggest that inflammation of epidermal cyst leads to calcification of the cyst wall; with subsequent degeneration of cyst wall living only the calcific deposits in older lesions[9]

Carson highlights the possible role of nanobacteria in extraskeletal calcifications[11]. They can invade the skin via the sites of microtrauma without causing overt features of infection. Their most remarkable characteristic is the formation of calcium apatite crystal at neural PH and at physiologic level of blood calcium and phosphate[11]. Our case and many other reports failed to demonstrate presence of cyst wall or keratin around the lesion[12, 13]. This type can be referred to as idiopathic.

The main reason patient seek intervention is because of cosmetic concern. Patient with intense pruritus or ulceration will require surgical intervention. Smaller lesions are amenable to the novel pinch punch excision [14]. Larger lesions may require wide excision and direct closure can be achieved in most patients as shown in our case. .

Even though scrotal calcinosis is a benign condition, it is important to let patient know about the possibility of recurrence [8]. Recurrence may be due to left over microscopic foci of calcification.

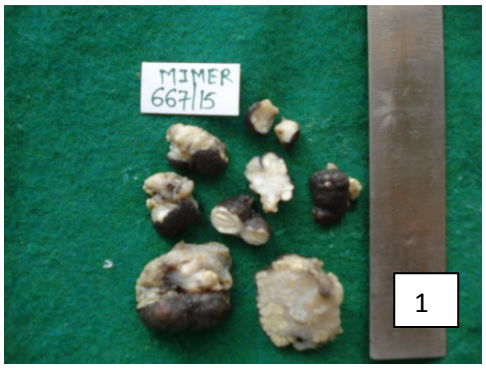
Conclusion

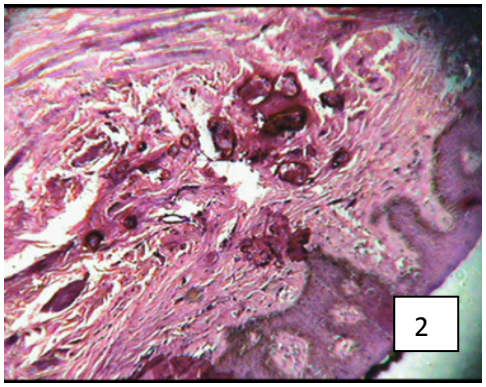
Although the pathogenesis and basic origin of scrotal calcinosis remains controversial,surgical management followed by confirmation of diagnosis by histopathology is the gold standard treatment for this disease.

Fig. 1 - Multiple skin covered nodules showing small round chalky white areas of calcification

Fig. 2 – Microphotograph showing skin with foci of calcification in the dermis (H& E 4X)

Fig. 3 - Microphotograph showing skin with large area of calcification in the dermis (H& E 4X)





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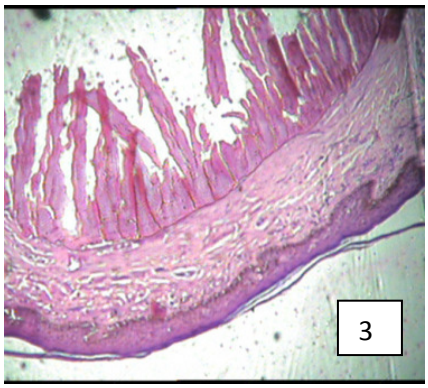

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