Original Research Paper

VOLUME-6 | ISSUE-4 | APRIL - 2017 • ISSN No 2277 - 8179 | IF : 4.176 | IC Value : 78.46

CALCIFIED SCROTAL CYST: A CASE REPORT

Dermatology

KEYWORDS: Calcified scrotal cyst, calcified cyst, scrotal calcinosis.

Deepthi Ravi — Senior Resident Department of Dermatology, Venereology & Leprosy; Sree Balaji Medical College &Bharath University, Chennai 600044, Tamil Nadu, India.

Jayakar Thomas — HOD & Professor Department of Dermatology, Venereology & Leprosy; Sree Balaji Medical College &Bharath University, Chennai 600044, Tamil Nadu, India.

ABSTRACT

Calcified scrotal cyst is a benign rare disorder characterized by multiple or single asymptomatic calcified nodules of various sizes in the wall of the scrotum [1]. It usually results from calcification of epidermal or hair follicular or duct cysts [2]. Here we report a case of multiple painless nodules over the scrotum in a 50 year old male patient present since the last 20 years.

INTRODUCTION:

Calcified scrotal cyst is a benign disorder presenting with multiple tense firm to hard nodules over the scrotum. Idiopathic scrotal calcinosis was initially described by Lewinski in 1883 as a category of calcinosis cutis [3] and Shapiro described it as a separate disorder in 1992 [4].It usually starts from 20 to 40 years of age [5]. The etiology is not clear. It might be idiopathic or may arise from calcification of the dartos muscles [6]. It might also be due to inflammation of the epidermal, eccrine epithelial or hair follicle cysts.

CASE REPORT:

A 50 year old man presented to our OPD with multiple painless nodules over the scrotum present since the last 20 years. History of chalky white discharge was present. No history of any systemic or metabolic disorder. No history of trauma, infection, ulceration or inflammation at the site.

On examination around 8 firm to hard non tender subcutaneous nodules ranging in size from 0.5 to 3 cm were seen on the scrotum [Figure 1]. Chalky white discharge was seen from two of the nodules.

Serum parathyroid hormone, phosphorus and calcium hormone levels were within normal limits. An excision biopsy was done from one of the nodules. The biopsy showed lobules of amorphous calcified areas within the dermis [Figure 2]. Borders of the lobules show fibrosis. There was no epithelial lining nor were there inflammatory cell infiltration or granuloma formation [Figure 3].

The patient was referred to a surgeon for excision of the other nodules.

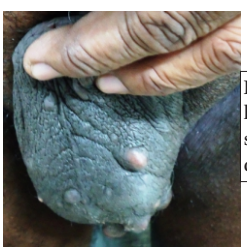

Figure 1: Multiple firm to hard nodules over the scrotum with chalky white discharge

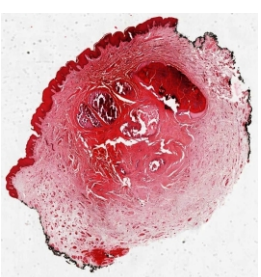

Figure 2: Scanning view
A section with H&E staining showing
Lobules of amorphous calcified areas are seen within the dermis.
Borders of the lobules shows fibrosis.

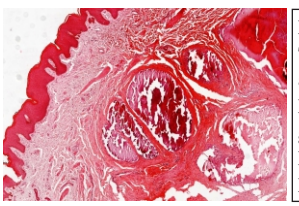

Figure 3: Low power 10 x 10
The amorphous calcified areas are more clearly seen.
No inflammatory cells or granuloma formation.
No epithelial lining.
No foreign body reaction.

DISCUSSION:

Calcified scrotal cyst is generally an asymptomatic condition and has a benign course due to which there is a delay of many years in the inception of the disease and the therapy [7]. However, discharge of whitish chalky material, heaviness or itching may be seen.

Usually the serum parameters such as calcitonin, parathyroid hormone levels, 25-OH vitamin D, calcium and phosphorus levels are normal [6].

Histopathological findings include basophilic amorphous calcium deposits in the dermis which is surrounded by a foreign body type of granulomatous reaction [8]. Initially inflammation of the cysts with infiltration of mononuclear cells is seen. This is followed by granuloma formation. Later resorption of the cyst walls and keratinous debris is seen. At the end calcified deposits are seen [6]. Histopathology findings correspond to the age of the cyst and therefore long term cysts show few or no epithelial lining cells and show more of calcified deposits.

Differential diagnoses include sebaceous cysts, hematoma, sperm granuloma, calcifications resulting from chronic epididymitis [9], hydrocele with secondary scrotal calculi and testicular tumors such as gonadoblastoma, teratoma and leyding cell tumors which may show secondary calcification [10].

Treatment is generally for aesthetic reasons and is surgical excision is the gold standard for treatment. Smaller lesions can be removed by pinch punch excision [11, 12]. Larger lesions can be removed by wide excision and direct closure [13]. Scrotal reconstruction might be required for extensive or recurrent disease. Left over microscopic foci of calcification may lead to recurrence [14].

ACKNOWLEDGEMENT: NONE

CONFLICT OF INTEREST:

The authors declare that they have no conflict of interest.

STATEMENT OF HUMAN AND ANIMAL RIGHTS:

All procedures performed in human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or

comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

REFERENCES:

1. Deba P.S, Thomas G.W. Scrotal calcinosis: Calcification of epidermal cysts. Journal of surgical oncology 1984; 27:76-79
2. Shah V, Shet T. Scrotal calcinosis results from calcification of cysts derived from hair follicles: a series of 20 cases evaluating the spectrum of changes resulting in scrotal calcinosis. Am J Dermatopathol. 2007; 29(2):172-5.
3. Lewinski HM. Lymangioma der Haunt mit verkalktem Inhalt. Virchow Arch Pathol Anat 1883; 91:371-4.
4. James M. S, Loren E. G. Scrotal Calcinosis: Dystrophic Calcification of Epidermoid Cysts. Arch Dermatol. 1982; 118(12):985-988.
5. Khan MA, Veena M, Khaliqur R. Idiopathic calcinosis of scrotum: Cytological diagnosis of a case. Journal of Cytology 2008, pp.23-24
6. Parlakgumus A, Canpolat ET, Caliskan K. Scrotal calcinosis due to resorption of cyst walls: a case report. J Med Case Rep. 2008; 2:375.
7. Abdelhak K, Oussama E Y, Soufiane M, Mohamed F T, Jamal el F. Idiopathic Scrotal Calcinosis: A Non-Elucidated Pathogenesis and Its Surgical Treatment .Rev Urol. 2011; 13(2): 95–97.
8. Hicheri J, Badri T, Fazaa B,. Scrotal calcinosis: pathogenesis and case report. Acta Dermatovenerol Alp Panonica Adriat 2005;14:53-6
9. Bushby LH, Miller FN, Rosairo S, Clarke JL, Sidhu PS: Scrotal calcification: ultrasound appearances, distribution and aetiology. Br J Radiol. 2002, 75: 283-288.
10. Saad AG, Zaatari GS: Scrotal calcinosis: is it idiopathic? Urology. 2001, 57: 365-10.
11. Chang C. H, Yang C. H, Hong H. S, "Surgical pearl: pinch-punch excisions for scrotal calcinosis," Journal of the American Academy of Dermatology 2004; 50(5): 780–781.
12. Saba K, Seher Y, Kadri A, Ozden T. Scrotal Calcinosis: A Case Report and Review of Literature. Journal Of Ankara University Faculty of Medicine 2011; 64(1): 46-50
13. Usman M.T, Bashir M. I. Scrotal Calcinosis: A Case Report and Review of Pathogenesis and Surgical Management. Case Reports in Urology 2012; Article ID 475246, 3 pages
14. Ruiz-Genao D. P, Ríos-Buceta L, Herrero L. "Massive scrotal calcinosis," Dermatologic Surgery 2002; 28(8): 745–747.