Idiopathic Scrotal Calcinosis In An Infant: Unusual Presentation

Senthil Ponnusamy¹, Suhailur Rehman², Sayeedul Hasan Arif³, R S Chana⁴

¹Asst. Professor, Dept. of Pathology, Vinayaka Mission's Kirupananda Variyar Medical College & Hospital, Salem, Tamil Nadu.
²Senior Resident, Department of Pathology, J.N. Medical College & Hospital, A.M.U, Aligarh, Uttar Pradesh.
³Professor, Department of Pathology, J.N. Medical College & Hospital, A.M.U, Aligarh, Uttar Pradesh.
⁴Professor, Department of Pediatric Surgery, J.N. Medical College & Hospital, A.M.U., Aligarh, Uttar Pradesh.

ABSTRACT

Background:
Calcinosis cutis is a process with accumulation of calcium in the dermis, forming masses anywhere in the body. Scrotal calcinosis is a rare benign local process. Calcinosis cutis has four major types according to etiology. Scrotal calcinosis is mostly multiple, commonly occurs between third and fourth decades of life. It is extremely rare in infants. This is a case report of single calcified nodule that occurred in the scrotum of an 8 month old boy. The lesion was identified by cytology and confirmed with histology. Various sites of few infantile calcinosis have been described till now. Here we report a very rare and first case in an infant, who presented with idiopathic calcinosis cutis in scrotum.

Keywords: Scrotal calcinosis cutis, Infant, Idiopathic, Dystrophic.

INTRODUCTION:

Scrotal calcinosis is a rare benign local process characterized by the appearance of calcific masses within the dermis of scrotum. Clinically it presents with multiple, painless, scrotal nodules in the absence of any systemic metabolic disorder. Although a few infants with calcinosis cutis have been reported, to the authors' knowledge, our aim is to report this very rare and first case in infant with idiopathic calcinosis cutis in scrotum presenting as single nodule.

CASE REPORT:

We report a 8 months old child with asymptomatic single calcified scrotal skin nodule noticed by his parents. On examination nodule was single on the right side of anterior wall of scrotum, Size - 2x1.5cm, firm to hard in consistency, non-tender, movable (Fig-1-A). No other swellings in the body. On clinical examination pyogenic abscess or calcinosis cutis was suspected.

FNAC showed extensive amphophilic calcified material(Fig, 1-B), calcinosis cutis was suspected and advised for biopsy. Wide excision of the lesion and direct closure of the scrotum was done. Histological examination revealed extensive deposition of calcium in the dermis, which was surrounded by histiocytes and an inflammatory giant cell reaction (Fig 1-C). Calcium was confirmed with von-kossa staining. Serum levels of calcium and phosphate was within normal limit.

Address for correspondence:
Dr Senthil P, 4-1/56A, RC Plant, Raman Nagar, Mettur Dam, Salem-636403.
Email senthilmune07@gmail.com Ph No : 07895173210.
Figure-1: A photograph shows a single nodule in the right side anterior wall of the scrotum.

DISCUSSION:

Idiopathic calcinosis cutis of the scrotum was first illustrated by H.M. Lewinsky in 1883. Scrotal calcinosis is mostly multiple and commonly occurs between the third and fourth decades of life. It can also occur during childhood or early adulthood. However, very few studies have noted that calcinosis cutis in infants occurs at various sites including the ear, hard palate, oral cavity, left foot, leg, and skin. Although calcinosis cutis has been reported at various sites in infants, this is indeed the first case to be reported in an infant's scrotum.

Calcinosis cutis is classified into four major types according to etiology: Dystrophic, Metastatic, Idiopathic, and Iatrogenic. Among those dystrophic and idiopathic types are rare. The pathogenesis of calcinosis cutis has not been fully elucidated and remains controversial. The calcium deposition can be idiopathic or in can be from pre-existing lesions like epidermoid cyst. Very few studies have proposed that scrotal calcinosis represents idiopathic calcification without any etiology. Few studies support the calcinosis cutis is a form of dystrophic calcification arising from the pre-existing structures like epidermal cysts, the hair follicle and eccrine glands.

Dubey et al explained the theory of dystrophic calcification of epithelial cysts in their studies presumed that absence of a cyst wall (40 percent), due to late stage interventional surgery and earlier stages may just not have been sampled. In dystrophic calcification of epithelial cysts, the cysts become inflamed, rupture, and calcify, with gradual obliteration of the cyst wall.

In our case, no pre-existing lesions were present.
There was no also no preceding history like trauma or connective tissue disorders. The excision of scrotal calcinosis was done without recurrence in a period of 12 months. This case is unique as this is a rare variety of idiopathic scrotal calcinosis cutis in an infant presenting as a single nodule.

Agrawal et al and Sherwani et al mentioned that presence of amorphous calcium salts along with histiocytes is diagnostic of calcinosis cutis.\textsuperscript{20,21} Chakrabarti et al noted that unnecessary surgery was avoided in less extensive and uncomplicated idiopathic scrotal calcinosis by investigating FNAC smears.\textsuperscript{22} Our study also had similar findings as all the above studies, and it correlated well with the histopathology.

**CONCLUSION:**

Thus, in our study the rare entity of idiopathic infantile solitary scrotal calcinosis cutis was diagnosed by FNAC and confirmed with histopathology. The patient is in regular follow up and without any recurrence till date.

**REFERENCE:**


