

Idiopathic Scrotal Calcinosis: Surgical Treatment of a Rare Cutaneous Disorder

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Abstract

Case Report

Idiopathic scrotal calcinosis is a rare, painless and benign disease characterized by the presence of multiple painless calcified nodules of the scrotum with no abnormalities of phosphocalcic metabolism. The main reason for consult among patients is the aesthetic discomfort. Histology shows basophilic calcium deposits in the scrotal dermis and calcified fibroids surrounded by foreign body giant cell granulomas. Treatment is based on surgical removal of the nodules. We report the case of a 27-year-old patient with no notable pathological history who consulted for multiple cystic nodular lesions of the scrotum, painless and non- infected, with no notion of previous trauma, evolving for 12 years. The patient underwent surgical removal of the scrotal nodules under local anesthesia. No recurrence was noted; the follow-up was one year. After a review of the literature, we discuss the pathogenic, clinical and therapeutic aspects of this poorly understood pathology.

Keywords: Idiopathic scrotal calcinosis, scrotum, nodules, treatment, surgery.

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INTRODUCTION

Idiopathic scrotal calcinosis is a rare, indolent and benign disease defined by the presence of multiple painless calcified nodules within the scrotal skin (Shapiro L *et al.*, 1970). It was first reported by Lewinski about two centuries ago (Lewinsky HM, 1883). The condition is not associated with abnormalities of phosphocalcic metabolism and its pathogenesis is still under controversy. Surgery is the treatment of choice and provides excellent results.

CASE REPORT

We report the case of a 32-year-old male, with no history of inflammatory disease or metabolic or systemic disorders, with painless nodular cystic lesions of the scrotum that had been evolving since the age of 20 and were causing him psychological distress. The physical examination showed multiple firm, whitish, non-inflammatory, painless nodular lesions of the scrotum, the largest of which measured 1.2 cm in diameter. The biological workup was normal, including the phosphocalcic workup. The patient underwent excision of his lesions under local anesthesia and

antibiotic coverage. The excision was performed with a cold blade through an infra-centimeter incision for isolated nodules and by spindle-shaped excision followed by sutures with absorbable thread for conglomerated lesions. Pathological examination confirmed the diagnosis of scrotal calcinosis. The surgical wound was completely healed and there was no recurrence at 1 year after excision.



Fig. 1: Calcic nodule measuring 1,2cm



Fig. 2: Nodular lesions of the scrotum and immediate postoperative outcome

DISCUSSION

The common form occurs in young people during the third decade. Pathophysiology remains a point of controversy (Pabuc Cuoglu U *et al.*, 2003) and several theories have been put forward. Indeed, if some authors think that SC is the result of dystrophic calcifications of preexisting structures such as epidermal cysts, others did not find any evidence of preexisting cystic structures and believe this condition to be idiopathic. Clinically, there may be single or multiple, often asymptomatic nodules of the scrotum, ranging from 1 mm to 7 cm. Some patients describe pruritus, ulcerations, and even chalky discharge, although most consult for purely cosmetic reasons (Dubey S *et al.*, 2010). The evolution is often indolent and takes place over several years. Histology shows basophilic calcium deposits in the scrotal dermis and calcified fibroids surrounded by foreign body giant cell granuloma. The lesions are always limited to the dermis and spare the dartos.

CONCLUSION

The reference treatment is surgical excision, either nodule by nodule, as in the case of our patient, or in monobloc by a spindle-like excision centered on the raphe for the largest nodules or multiple confluent nodules (W. Noel *et al.*, 2016) Such excision would often be closed by scrotal advancement flap.

Although, the pathogenesis and basic origin of SC remains controversial, surgical management is the gold standard treatment for this disease (Khallouk A, 2011). The surgical excision should be based on the extent of the nodules and must include even the smallest nodules to avoid rapid recurrence.

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