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Case Report

Idiopathic Scrotal Calcinosis – A Case Report

Uwe Wollina[1*], Jacqueline Schönlebe[2], Katlein França[3], Georgi Tchernev[4,5], Torello Lotti[6]

[1]Städtisches Klinikum Dresden - Department of Dermatology and Allergology, Dresden, Sachsen, Germany; [2]Städtisches Klinikum Dresden - Center of Physical and Rehabilitative Medicine, Dresden, Germany; [3]Department of Dermatology and Cutaneous Surgery, Department of Psychiatry & Behavioral Sciences; Institute for Bioethics and Health Policy, University of Miami Miller School of Medicine, Miami, FL, USA; [4]Department of Dermatology, Venereology and Dermatologic Surgery, Medical Institute of Ministry of Interior, Sofia, Bulgaria; [5]Onkoderma, Policlinic for Dermatology and Dermatologic Surgery, Sofia, Bulgaria; [6]University of Rome, Institute of Deramtology, Rome, Italy

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***Correspondence:** Uwe Wollina. Städtisches Klinikum Dresden - Department of Dermatology and Allergology, Dresden, Sachsen, Germany. E-mail: wollina-uw@khdf.de

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Abstract

Idiopathic scrotal calcinosis is a rare disorder presenting with firm and painless nodules on the scrotal skin. The most common site is the frontal aspect of the scrotum whereas the dorsal aspect with the transition to the perineum is rarely involved. Surgery is the gold standard of treatment.

Introduction

Inguinoscrotal disorders can be chronic disorders or emergencies like testicular trauma or torsions [1].

Table 1: Scrotal cysts and tumours

Entity	Remarks
Epidermal Cyst	Stratified lining epithelium, filled with keratin and debris May occur in Gardner syndrome Can lead to secondary calcinosis Cancerization is very rare
Cutaneous ciliated cyst	Rare benign lesion, very rare in males Female predominance (here on the legs)
Steatocystoma multiplex	Uncommon benign tumours of the pilosebaceous unit Stratified squamous epithelium without granular layer Filled with sebum Mutations in KRT17 gene
Eruptive vellus hair cyst	Stratified squamous epithelium with granular layer Multiple vellus hair shafts inside
Pilomatricoma	Rarely on scrotal skin Firm nodules, mostly single tumours Islands of epithelial cells composed of ghost cells in the centre surrounded by basaloid cells
Idiopathic scrotal calcinosis	No epithelial lining

Scrotal nodules and cysts are rare findings. If they are asymptomatic, the diagnostic delay may be for several years or even decades. Table 1 provides an overview of scrotal cysts and tumours [2].

We report on a rare case of extensive idiopathic scrotal calcinosis treated surgically.

Case report

A 46-year-old male patient presented with asymptomatic nodules of the scrotal skin for diagnosis and treatment. He reported the slow development of multiple lesions within the last ten years. He was otherwise healthy and did not have any medications or allergies.

On examination, we observed more than 30

firm subcutaneous cysts of variable size attached to the scrotal skin. On palpation, they were firm but painless. Their size varied form 3 mm to 4 cm (Fig. 1). Inguinal lymph nodes were impalpable. We performed surgical excision in general anaesthesia.

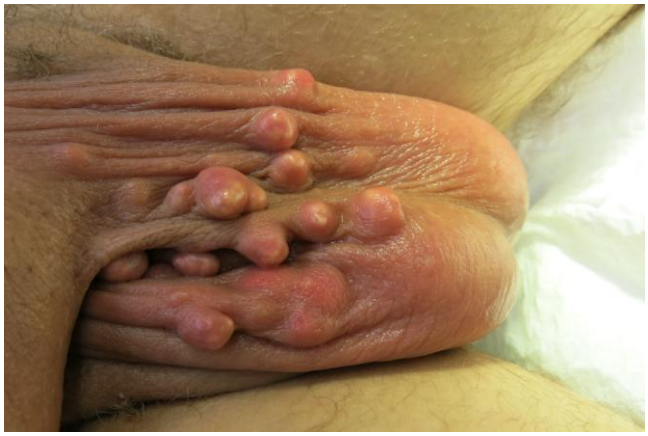

Figure 1: Multiple scrotal tumours – idiopathic scrotal calcinosis of the anterior aspect of the scrotum

The tumours were subjected to histopathological examination. On examination, pseudocystic formations with a fibrotic tissue around calcium deposits of variable size could be seen. There was no epithelial lining (Fig 2).

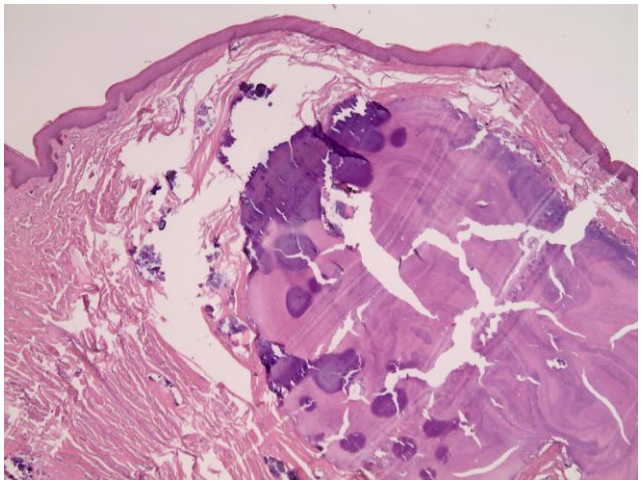

Figure 2: Histopathology of idiopathic scrotal calcinosis with coarse calcifications (hematoxylin-eosin x 10)

Healing was unremarkable. The patient was discharged on the second day after surgery.

Discussion

Firm nodules of the scrotal skin are rare. They can arise from pre-existing cysts like sebaceous cysts or steatocystoma multiplex or develop de novo. The latter is designated idiopathic scrotal calcinosis. The major difference to calcified cysts is the complete absence of a lining epithelium [3]. Surgery is the treatment of choice.

The senior author of this paper (UW) noted during his decades of experience in clinical dermatology that idiopathic calcinosis and scrotal cysts are mainly localised an the anterior aspect of scrotal skin. Scrotal skin is a product of cloacal membrane ectoderm forming the labioscrotal folds [4].

There are some differential diagnoses to idiopathic scrotal calcinosis (Table 1). Multiple epidermal cysts of the scrotum [5][6][7], sebaceous cysts [8], steatocystoma multiplex [9]. Larger cysts need surgery; smaller ones can be subjected to laser therapy with either carbon dioxide or diode laser [10][11][12]. A linear nick with a radiofrequency electrode works well in enucleating the cysts intact as long as they are not melded together with the surrounding tissue [12].

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