CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

Internal Medicine Quiz – Case 25

Male, 72-year-old, patient with a general good health status noticed the slow development of small non-symptomatic papules of long duration restricted to the scrotum (fig. 1). His clinical examination and determinations of serum calcium, phosphorus, parathyroid hormone, vitamin D, uric acid, alkaline phosphatase, and lipid profile were all normal. The option was for the simplest and definite extraction of the papules (fig. 2), and the analysis of the material from the scrotum lesions allowed to confirm the final diagnosis. The postoperative course was without any adverse event, and he remained asymptomatic.

ARCHIVES OF HELLENIC MEDICINE 2025, 42(4):573–574 APXEIA ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2025, 42(4):573–574

V.M. dos Santos,¹ A.P. Tedeschi,² J.C. Modesto³

¹Department of Internal Medicine, Armed Forces Hospital and Catholic University, Brasilia-DF ²University of the Americas, São Paulo-SP ³Catholic University, Brasilia-DF, Brazil



Figure 1.



Figure 2.

Comment

Idiopathic scrotal calcinosis (ISC) is a benign entity of the skin manifested by solitary or multiple painless nodules or papules not related to calcium or phosphorus disorder; histology or imaging studies can establish the diagnosis, and the excision is curative. This uncommon condition was first described by Lewinski in 1883; notwithstanding, the current known ISC designation was later coined by Shapiro et al in 1970. Cutaneous calcinosis may be idiopathic, metastatic, dystrophic, or traumatic; the exact pathogenesis of ISC is still lacking, but the local inflammatory responses, some genetic factors, repeated trauma or other kind of damage might contribute to calcium deposits. Some examples aim to emphasize the main aspects of ISC to increase the level of awareness and suspicion index of the non-specialist general practitioners about this entity. A 38-year-old patient evolved with painless ISC for 22 years and recent spontaneous chalky white secretion, the diagnosis was by the typical ultrasound images of hypoechoic nodules localized in the dermis of the scrotum and presenting echogenic foci within. The excised specimen showed nodular aggregates of deeply basophilic calcified materials in the dermis, besides infiltration of lymphocytes and plasma cells in the papillary dermis. The authors commented on cosmetic aspects of ISC, the "pinch-punch" excision of smaller papules, and wider excision for the larger lesions sometimes utilize skin grafts. A 42-year-old patient had multiple painless ISC nodules in the scrotum for over 20 years and underwent the complete surgical excision, and the histopathological specimens revealed dermic calcium deposits with foreign body-type granulomatous reaction; therefore, the sebaceous cysts, steatocystoma, fibroma, and xanthoma were discarded. A 47-year-old patient had painless scrotal nodules for fifteen years and their surgical excision established the definite diagnosis of ISC; besides an unremarkable postoperative course, with no evidence of recurrence observed during the longstanding

V.M. DOS SANTOS et al

follow-up. The authors stressed the absence of epithelial cells or anatomical structure degeneration which confirmed the idiopathic origin of this ISC successfully managed by the surgery.

References

- AYILARA SJ, LAWRENCE OI, OGUNSANYA TE, FATUNLA EO, AGUNLOYE AM, OGBOLE GI. Ultrasound imaging and pathologic features of idiopathic scrotal calcinosis in a young adult Nigerian and review of the literature. *Ann Ib Postgrad Med* 2024, 22:112–115
- 2. DING X, DING S, LIU P. Idiopathic scrotal calcinosis. *Asian J Surg* 2024, 47:1178–1179
- 3. GAZZAH W, TAHER SB, LAHOUAR R, KHALIFA BB, NAOUAR S, SALEM

- B. Idiopathic scrotal calcinosis: Is the cause still unknown? A case report. Int J Surg Case Rep 2024, 117:109503
- 4. GILL SK, SINGLA R, GOTHWAL M, ARORA BK. Idiopathic scrotal calcinosis cutis. *Int J Res Health Allied Sci* 2024, 4:13–15
- SHAO Y. A comprehensive study on idiopathic scrotal calcinosis: Pathological features, treatment approaches, and future directions. *Minerva Surg* 2024, doi: 10.23736/S2724-5691.24.10348-6

Corresponding author:

V.M. Santos, Department of Medicine, Armed Forces Hospital and Catholic University, Brasília-DF, Brazil e-mail: vitorinomodesto@gmail.com