

Puzzling Painful Cutaneous Nodules: A Sign to Dig Deeper

Preetha Kamath, MD¹, Angelia Stepien, DO FAAD¹, Brandon Beal, MD FAAD¹, Courtney Burnett, DO¹, and Karthik Krishnamurthy DO FAAD FAOCD¹

¹HCA Florida Orange Park Hospital, Orange Park, FL

Introduction

32-year-old African American male with chief complaint of multiple bumps located on his arms and legs that had been present for years. They were getting larger, tender, and causing social distress. He was told by previous providers that they were likely cysts or keloids. He had no known medical conditions and denied previous surgery or trauma to the sites. He was not taking any medications and was a daily smoker. The patient reported that his sister had similar nodules on her elbows.

Clinical Presentation and Workup

Examination revealed four skin-colored soft, freely movable subcutaneous nodules with the following sizes:

- 9.6 cm on the right elbow
- 8.2 cm on the left elbow
- 5.6 cm on the right knee
- 1.7 cm on the right forearm

The lesions were first debulked and then excised at their bases. Labs were ordered including a complete blood count with differential, complete metabolic panel, fasting lipid panel, hemoglobin A1C, and total testosterone.



Figure 1 and 2. Freely moveable nodules on right elbow and right knee.

Lab and Pathology Results

Labs were notables for elevated LDL cholesterol at 130 mg/dL and non-HDL cholesterol at 145 mg/dL. The complete blood count with differential, complete metabolic panel, hemoglobin A1C, and total testosterone were within normal limits. The patient has been referred to Endocrinology for further evaluation and results are pending. Histopathology revealed aggregates of foam cells in the dermis, with surrounding fibrosis and a dense lymphocyte predominant infiltrate consistent with a diagnosis of tuberous xanthoma.

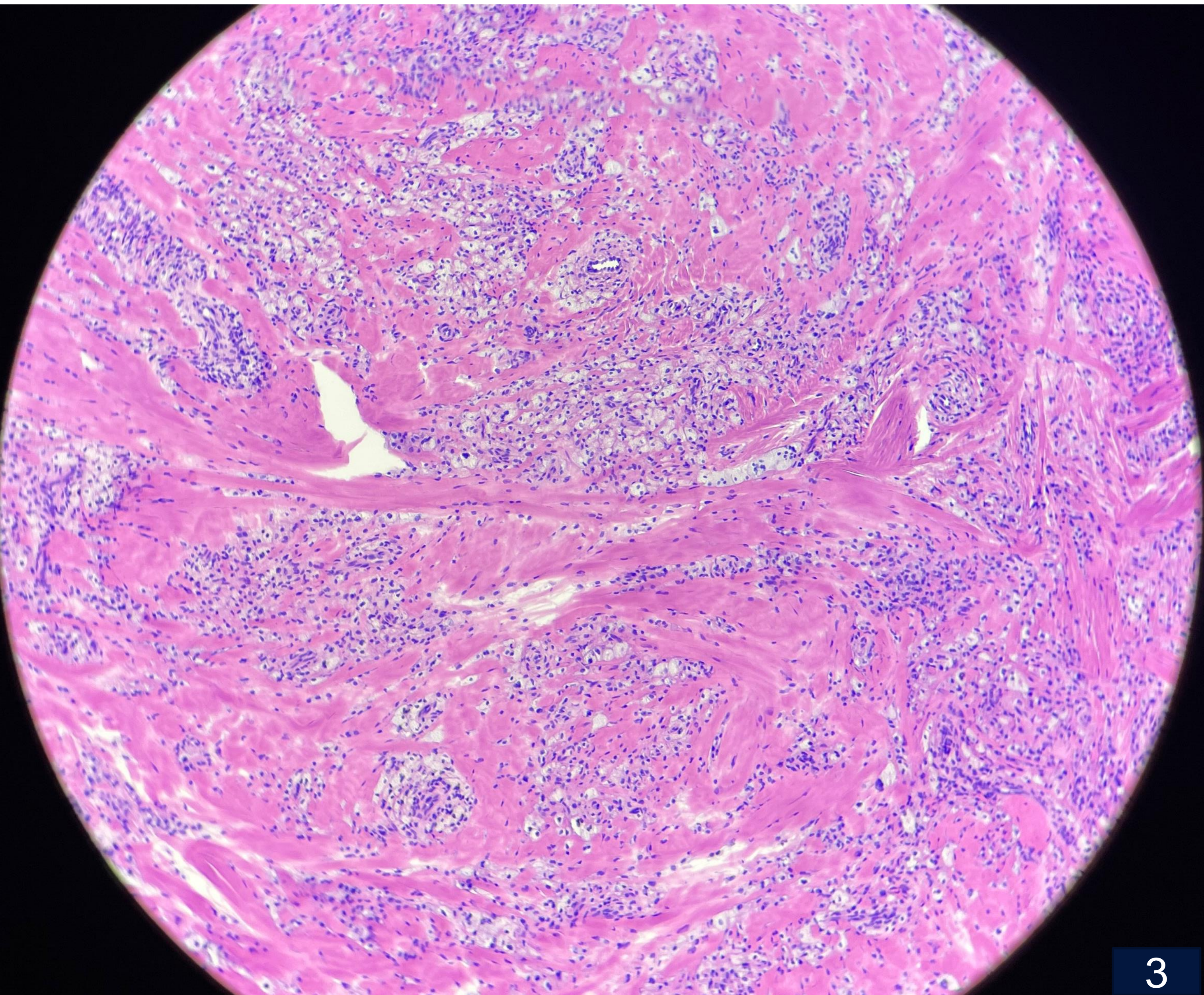


Figure 3. Hematoxylin & eosin (H&E) stain. 5X magnification.

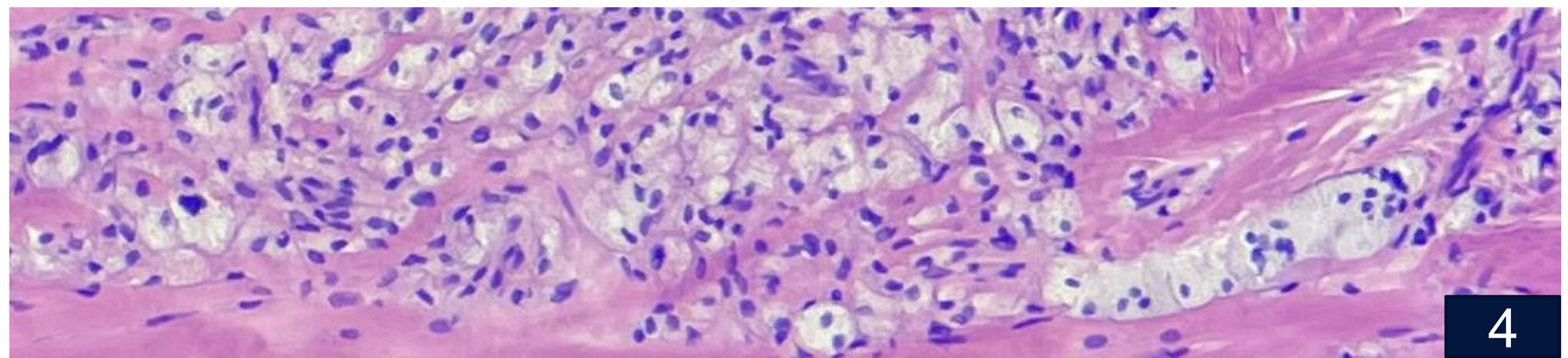


Figure 4. Hematoxylin & eosin (H&E) stain. 10X magnification shows foam cells

Discussion

Tuberous xanthomas may be mistaken for cysts or keloids especially in patients with skin of color. They present as pink-yellow papules or nodules on extensor surfaces, especially the elbows and knees.¹ They may exceed 3 cm in diameter and are slow to regress.

Other types of xanthomas include eruptive xanthomas, tendinous xanthomas, verruciform xanthomas, and plane xanthomas.

Different types of xanthomas may be associated with underlying diseases.² Tuberous xanthomas can be associated with atherosclerosis and heart disease. Eruptive xanthomas can be associated with diabetes mellitus and hypertriglyceridemia which can lead to pancreatitis. Plane xanthomas can be associated with monoclonal gammopathies and lymphoproliferative disorders.³

Type I, IV, and V hyperlipoproteinemia are associated with eruptive xanthomas. Type II and III hyperlipoproteinemia are associated with tendinous, tuberous, interdigital xanthomas, and plane xanthomas.⁴

With increased awareness and recognition of xanthomas, these lesions are more likely to be detected and may lead to additional discoveries that impact patient care.

References

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