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Letter to Editor

Pathology Section

Bilateral Xanthogranulomatous Orchiepididymitis in a Diabetic Patient

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Keywords: Diabetes mellitus, Inflammation, Testis

Xanthogranulomatous orchiepididymitis is a rare lesion characterized by the destruction of testicular parenchyma and its replacement by cellular infiltrate consisting predominantly of foamy histiocytes [1,2]. Bilaterality is an extremely rare phenomenon with only 2 cases being reported till date in the indexed literature [3,4]. One was reported in a 13-year-old boy who presented with left sided scrotal mass but further imaging and histopathology revealed bilateral involvement [4]. Another case was of a 55-year-old male patient who was tetraplegic and had neuropathic bladder for the past 21 years. He developed bilateral xanthogranulomatous orchitis possibly due to repeated retrograde urinary flow during dys-synergic voiding [3].

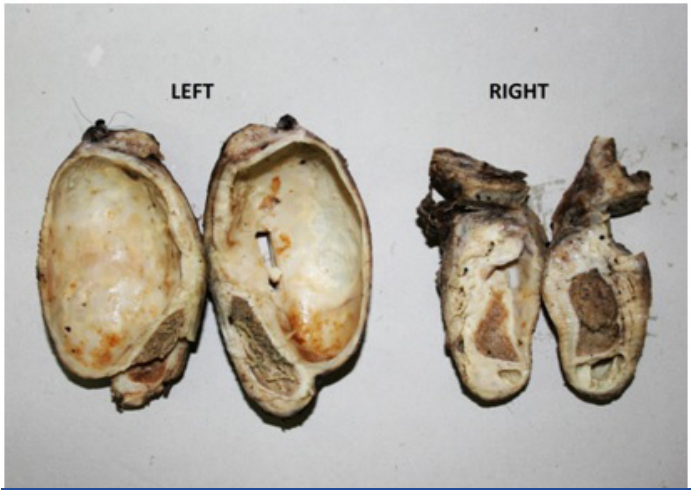
We report case of a 61-year-old diabetic male patient who presented with gradually progressive swelling in bilateral scrotum for two months along with fever for the past 15 days. The patient was not taking any anti-diabetic medication. Ultrasonography showed echogenic collections with internal echogenicity involving bilateral scrotal regions. Bilateral orchidectomy was done and the specimen was sent for histopathological examination.

On gross examination, both the testes were enlarged. The left one measured 10x6x5.5 centimetres and the cut surface showed a unilocular cyst filled with thin pus-like material. The right testis measured 8.5x3.5x3 centimetres and its cut surface showed multiple pus-filled cavities and necrotic areas which extended to the epididymis and spermatic cord [Table/Fig-1].

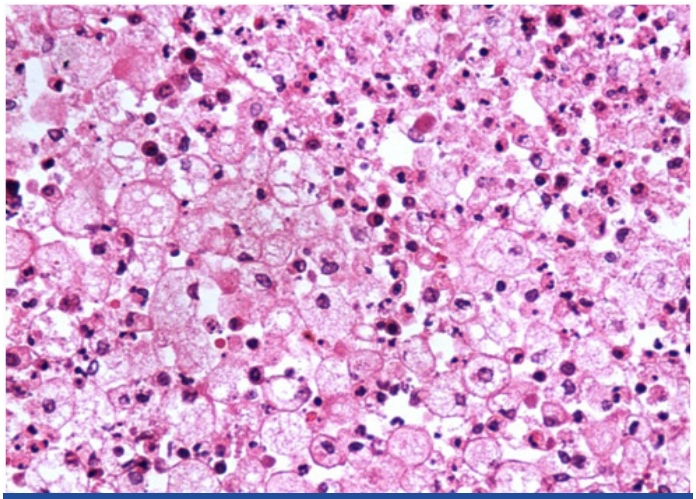
Microscopy of both testes showed sheets of foamy histiocytes [Table/Fig-2] with multiple microabscesses, which replaced the testicular tissue, epididymis and right spermatic cord. [Table/Fig-3]. A diagnosis of bilateral xanthogranulomatous orchiepididymitis and right side funiculitis was provided. Microbiological culture was not performed as formalin fixed specimen was received.

The aetio-pathogenesis of xanthogranulomatous inflammation includes several factors like infection, obstruction, abnormal lipid metabolism and altered immunological function [2]. The association of diabetes mellitus with xanthogranulomatous inflammation, as seen in the present case, can be explained by the fact that these patients are frequently immunocompromised and thus have impaired immunological responses [5].

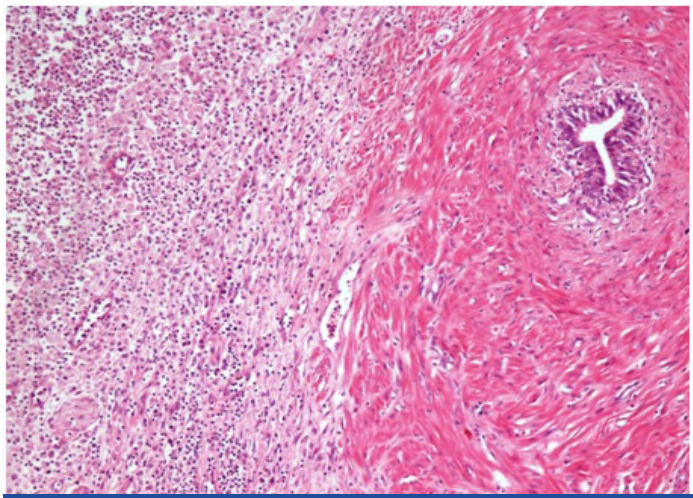
The differential diagnosis includes malacoplakia and Rosai-dorfman disease [6]. Bilateral xanthogranulomatous orchiepididymitis with funiculitis is an extremely rare benign lesion, demonstrating marked tissue destruction. Complete surgical removal is the definitive treatment.



[Table/Fig-1]: Gross specimen of bilateral testis



[Table/Fig-2]: Microscopy showed sheets of foamy histiocytes (H&E stain, 400X)



[Table/Fig-3]: The right vas deferens was involved by the histiocytic infiltrate (H&E stain, 100X)

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