AN ISOLATED TUBERCULOUSORCHITIS MIMICKING TESTICULAR TUMOUR AS A PRIMARY PRESENTATION OF HIV: A CASE REPORT.

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ABSTRACT

BACKGROUND: An isolated tuberculousorchitis is a rare lesion and is distinctly unusual as the primary presentation of human immunodeficiency virus (HIV) infection.A high index of suspicion remains decisive to this diagnosis especially when the clinico-radiological findings of such lesion affirmed features of the testiculartumour.

CASE REPORT: A 32-year old man presented with a three-months history of left sided painless progressive testicular swelling. Further clinico-radiological findings revealed traits of a left testicular tumour. He was found to be HIV positive only at the index presentation whilst the histopathology of the left sided orchidectomy tissue confirmed tuberculous (TB) orchitis.

CONCLUSION: High index of suspicion for TB orchitis with HIV in a patient with clinico-radiological findings of the testicular tumour from areas with high HIV and TB prevalence help in an expeditious diagnosis and therapy.

KEYWORDS: Tuberculosis, tuberculous orchitis, testicular tumour.

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INTRODUCTION

Genitourinary tuberculosis is the next most prevalent extrapulmonary tuberculosis after lymph nodes in populations with tuberculosis endemicity whilst it is third in the regions with a low prevalence.[1] The utmost site of genital tuberculosis is the epididymis whilst an isolated tuberculosis of the testis is rare. Testicular involvement mostly ensues advances from the epididymis and rarely the haematogenous spread.[2] Testicular swellings more commonly result from the testicular tumour, testicular torsion, hydrocele, spermatocele, bacterial epididymo-orchitis or viral orchitis.[3] The rarity of isolated tuberculosis of the testis mimicking testicular tumour as the first presentation of HIV necessitates high index of suspicion for diagnosis.

Nonetheless, a high prevalence of HIV infection parallels TB in parts of sub-Saharan Africa and translates into a presumed higher proportion of genitourinary tuberculosis. Factual diagnosis of tuberculous orchitis is, therefore, fundamental to a fitting antiTBtherapy and the fruitful outcome because uncomplicated tuberculous orchitis is curable with anti-tuberculous medications and requires no orchidectomy.[4] We report the case of an Isolated tuberculous orchitis as a rare primary presentation of HIV.

Case report: A 32-year old man presented with a three months history of progressive painless left testicular swelling. He had associated weight loss, but no fever, no drenching night sweat and no cough. No other genitourinary symptoms. Abdominal examination showed normal findings. Examination of the genitalia revealed left testicle mass with no differential warmness and non-tender. The mass was hard with a smooth surface and regular outline. The right testicle was normal. Other systemic examinations were normal.

His testicular ultrasound revealed well-defined hypoechoic mass measuring 70x40mm in diameter within the left testicular parenchyma. Fine needle aspiration cytology was equivocal. He was reactive to HIV test, erythrocyte sedimentation rate was 70mm/h. The Full blood count, electrolyte, urea and creatinine and blood sugar were within the normal limits. Tumour markers were not done because of financial constraint.

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Clinical diagnosis of a left testicular tumour was made, the patient was counselled had left radical orchidectomy.

Macroscopic examination of the orchidectomy tissue revealed enlarged left testicle which measured 7x5x4cm and weighed 80g. Transection revealed cheesy-white surface. After adequate sampling, histology unveiled effacement of native testicular architecture by numerous epithelioid cell granulomas admixed with langahan's giant cells and areas of caseous necrosis, consistent with tuberculous orchitis. The patient was subsequently placed on antituberculosis medications and then referred to the infectious disease specialist for the HIV therapy.

Figure 1 and 2 show the photo-micrograph of gross appearance and histology of tuberculous orchitis respectively.

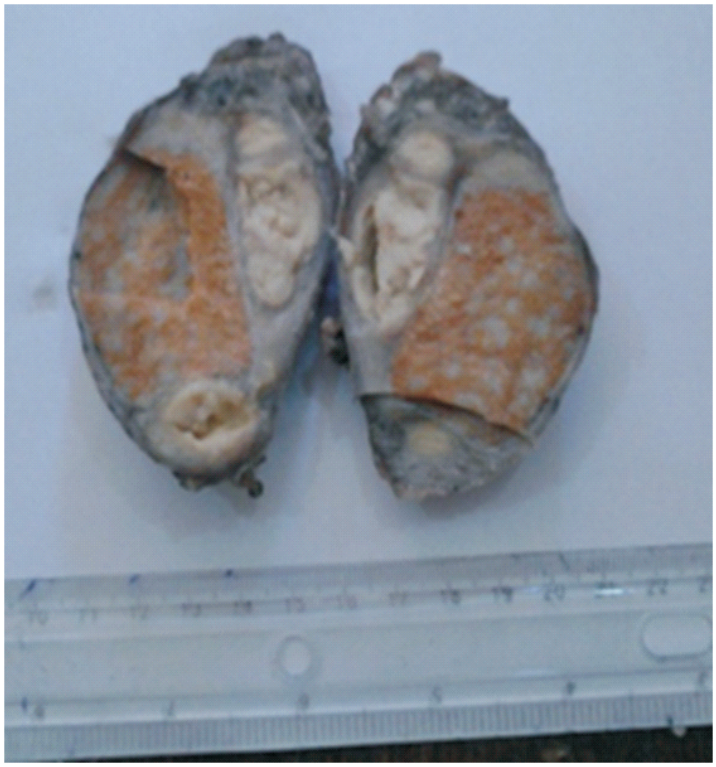

Figure 1: Cut surface showing cheesy-white surface

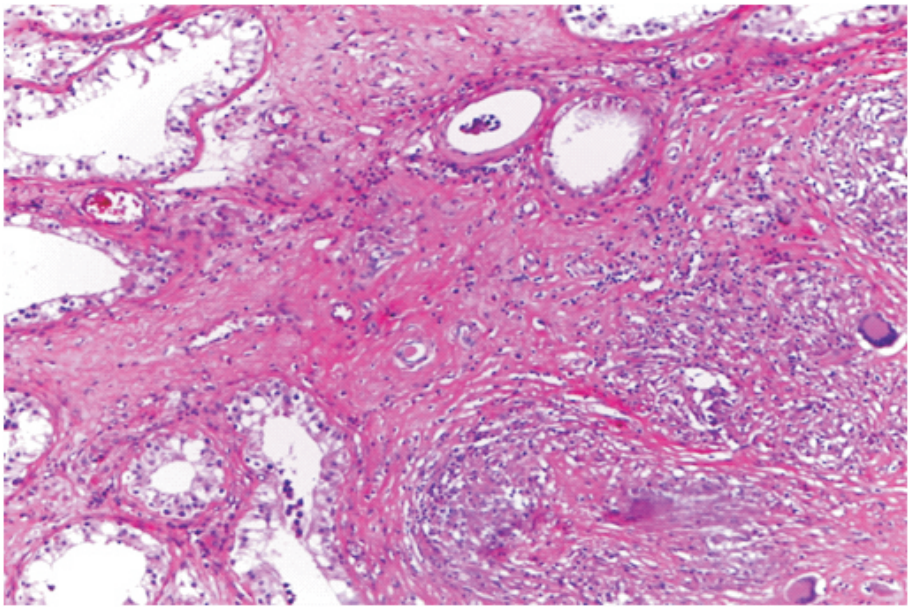

Figure 2:Tuberculous orchitis(H&E X10)

DISCUSSION:

Despite the universal positive progress in the health care delivery, tuberculosis hitherto reigns as an eminent public health impasse in the developing nations. World Health Organization (WHO)'s statistics showed an astonishing more than a billion persons have being afflicted with TB by the year 2013, besides a yearly 8.6 million fresh cases; a million of such new cases being an extra pulmonary, with an annual overall disease specific 1.4 million mortalities.[5] Customarily to the extrapulmonary TB is the absence of an outrightclinico-radiological trait of TB at the sites of involvements. Genitourinary tuberculosis is the second most prevalent form of the extra pulmonary TB in societies with TB endemicity but rated third in regions with low prevalence.[1] The incidence of genital tuberculosis in the males is 0.43 – 15% of the extra pulmonary tuberculosis.[3] Nonetheless, isolated TB orchitis is unusual even among the genital TB; TchaousM etal reported one isolated TB orchitis out of 116 extra pulmonary afflicted sites.[6] Similarly, Golden M etal reported only 1.6% amidst the genital TB.[7]

The aforementioned patient was a 32-year old; that was within an age bracket of both the testicular tumour and TB orchitisi.e 20 to 70 years.[3] Theclinico-radiological conclusions in the patient affirmed Testicular Tumour. Such tumour mimicries were scanty in the literature and probably correlate with few incidences of isolated TB orchitis.[8] The literature shows that up to 61.4% of patients with extra pulmonary TB have HIV.[9] The patient's retroviral disease state discovered at presentation likely increased his susceptibility to a rapidly progressive tuberculose orchitis, although he had no evidence of associated pulmonary, renal or epididymis tuberculosis. Reported clinico-radiological diagnosis of testicular tumours found to be tuberculosis after surgery oftentimes had tuberculosis affecting sites such as the seminal vesicle, prostate, kidneys and the epididymis.[3]Whytuberculosis in the index and the few reported cases were clinically and radiologically limited to theorchid remains a mystery.

The predominant causes of testicular swellings included testicular tumour, bacterial epididymo-orchitis and testicular torsion. The testicular tumour often presents as painless mass same as the tuberculous orchitis but the testicular tumour markers are often elevated. Bacterial epididymo-orchitis and testicular torsion often present as an acute scrotum with testicular pain and other constitutional symptoms such as fever, nausea, vomiting and lower urinary tract symptoms.[3] Our patient had testicular swelling and weight loss only.

Based on the clinic-radiological conclusions; he was prepared and offeredradical orchidectomy only for the histology to unveiled the classical feature of TB orchitis as shown in figure 2. Fortunately,he did well post-operativelyunlike a similar case managed by Coğuplugilet al in which the patient develop post-operative Inguino-Scrotal Fistula that only healed following the commencement of antiTB Chemotherapy.[10] The patient was managed further by a multidisciplinary team with infectious disease specialist incorporated.

In a patient with TB orchitis, surgery is recommended only in complicated cases. The patient should have 6 months of anti-TB chemotherapy and if the swelling remains unchanged or in the case of caseating abscess that does not respond to antiTB, surgical treatment is indicated. This help avoids the complications resulting from the organism dissemination.[4]

In conclusion, tuberculous orchitis is uncommon and usually posses diagnostic challenges, as clinical and radiologic findings may not be specific and may simulate a testicular tumour. A thorough evaluation with a high index of suspicion of possible added HIV infection is vital to avoid unnecessary orchidectomy in uncomplicated cases and appropriately treat the HIV and the TB.

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