Original Research Paper

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General Surgery

INVASIVE SCROTAL ASPERGILLOSIS IN A PATIENT WITH UNCONTROLLED DIABETES MELLITUS- A RARE CASE REPORT

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ABSTRACT Aspergillus is a one of the most common ubiquitous airborne saprophytic spore forming mold reproduce asexually by producing spores in the form of conidia.With the availability of moisture,warmth and nutrients conidia can germinate forming hyphae that later developes in to fungal mycelium.Aspergillus species that includes Fumigatus,Niger.Flavus,Nidulans,Clavans. Primary cutaneous aspergillosis (PCA) occurs in areas of disrupted skin, such as burns, catheter inlets, and surgical wounds. It's rare in immunocompetent patients, but more common in immunocompromised .Lesions initially appear similar to cellulitis, then later develop into a necrotic ulcer or scab.

KEYWORDS : Scrotum- Invasive Aspergillosis-immunocompromised- Uncontrolled Dm- Partial Scrotectomy – Pas Stain

INTRODUCTION

A 32 year old male received at ER with complaints of swelling and pain over his scrotum for past 15 days. He is a known case of Diabetes mellitus which was diagnosed 4 years back. Upon investigating he has poor glycemic control from time of diagnosis Patient also states history of pulmonary Tuberculosis for which he tooks ATT one and half year ago, completed the treatment, but records not available with the patient. He initially developes swelling over the scrotum, which then progessed to develop in to multiple necrotic skin ulcers in both anterior and posterior aspect, with purulent greenish discharge. On General examination he was conscious, oriented, afebrile, no pallor, severly emaciated, illbuilt and illnourished either due to PTB sequela or uncontrolled DM. Systemic Examination -cvs-s1/s2, no murmur, RS-NVBS, p/A – scaphoid, no hepatospleenomegaly. no cervical, axillary and inguinal lymphadenopathy. local examination – scrotum –Extensive skin necrosis, gangrene with multiple discharging sinuses, with active greenish pus discharge, the sinus tracts found both anteriorly and posteriorly. Right testis found to be small and atrophic could be due to chronic orchitic changes.

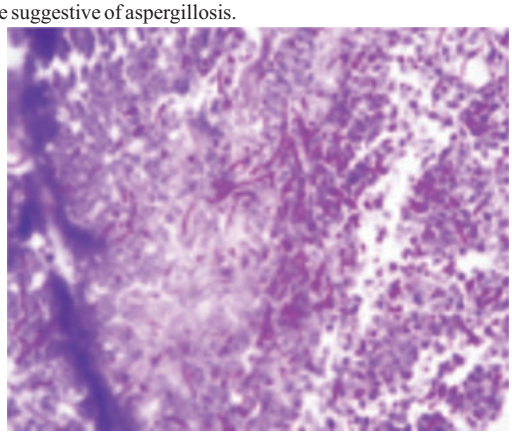
Left testis –normal .provisional diagnosis of TB epididymo orchitis with multiple skin sinuses done.

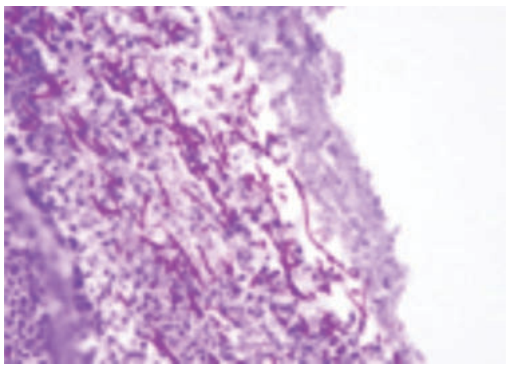
All basic investigations done, Total count within normal limits. serology negative, Monteux skin test –Negative, sputum for CBNAAT, AFB – found to be negative. Hence planned for partial scrotal skin excision and biopsy to rule out Tb etiology. Hence he was taken for surgery under spinal anesthesia, anterior and posterior scrotal skin along with sinuses excised, wash given and sent for biopsy. dressing opened on day 1+, 2+, 3+, found to be healthy, started granulating, no residual pus collection noted.

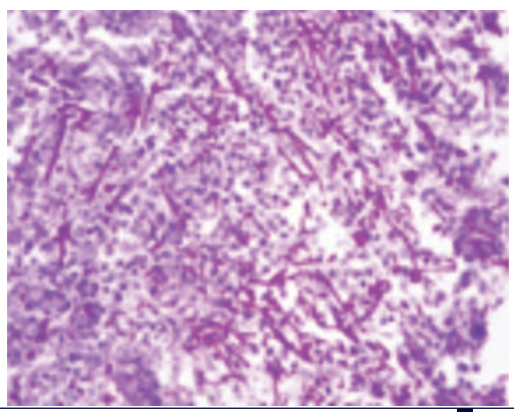
Histopathological Examination

Section shows skin with sinus tracts lined by dense neutrophilic infiltrates with necrosis and few fungal elements.The fungal hyphae are slender, septate with acute angle branching.

Special stain – periodic acid –Sciff stain positive for fungal elements more suggestive of aspergillosis.







Treatment

Hence patient was started on voricanazole 6mg/kg 12 th hrly on day 1 followed by 4 mg /kg from day 2 onwards. Patient was followed up planned for split skin grafting later.

Conclusions

This 32 year old patient is a known case of type I DM with uncontrolled glycemic control, his HbA1c level was– 9.5. Diabetes itself a state of immunocompromisation, which predisposes him to pulmanory tuberculosis which he developed and took ATT. Diabetes also paves the way to develop opportunistic fungal infections especially from candiasis, mucor, rarely aspergillus infection. In this case, since patient states he took ATT, we thought of TB relapse –Tubereculous epididymo orchitis with sctrotal skin sinuses. But pathological surprise we got it was invasive scrotal aspergillosis due to uncontrolled DM.