

SUPERINFECTION WITH FUSARIUM IN A CASE OF ERYSIPELAS

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INTRODUCTION:

Non-traditional human pathogenic fungi including *Fusarium* have been increasingly documented as agents of infection in immunocompromised and occasionally in normal individuals⁽¹⁾. *Fusarium* is an ubiquitous fungus that commonly colonizes ulcers, burns or traumatized skin⁽²⁾. We report a case of *Fusarium* infection complicating Erysipelas.

CASE REPORT:

A 35-year-old male patient, known case of muscular dystrophy with cardiomyopathy presented to us with painful swelling of right leg of 9 days duration. Physical examination revealed erythema, induration and tenderness over the anterior aspect of the right leg, proximally showing a well defined border with superimposed blisters over the plaques. Bilateral pitting pedal edema was also seen. A clinical diagnosis of erysipelas was made.

Since the patient was already on injection Vancomycin, Ceftazidim and metronidazole for bronchopneumonia, only topical fusidic acid cream with potassium permanganate compresses were added. Four days later Ampicillin and Cloxacillin 500mg was added in a sixth hourly dose, since there was no improvement. Within 10 days, the erythema and pain subsided, and the lesions healed leaving only a small central erosion. A week later there was development of erythema and induration around this erosion, this rapidly spread to form a large plaque which was covered with white cheesy friable material (Fig.1) which could be easily removed to recur

again within a period of 24 hours (Fig. 2).

A gram staining and KOH smear were done. KOH smear showed multiple fungal filaments with branching hyphae and macroconidia (Fig.3). The presence of macroconidia ruled out a candidal superinfection. KOH smear was repeated over the next 3 days, which revealed the same findings. Gram staining did not show any organisms. Fungal culture grew broadly spreading fluffy white colonies with the reverse showing apricot colour suggestive of *Fusarium* (Fig.4) All other baseline investigations including blood sugar levels were within normal limits. ELISA for HIV and HbsAg were negative.

A biopsy taken from the lesion showed neutrophilic abscess in the keratin layer, Epidermis showed elongated rete ridges and the dermis had marked edema, proliferating capillaries with diffuse polymorphonuclear infiltrate. Special stains for fungus were negative ruling out deep tissue and vascular invasion.

Patient was started on oral terbinafine 250mg once daily and topical ketoconazole cream for 1 month. The lesions completely subsided within 2 weeks.

DISCUSSIONS:

Fusarium species are filamentous non-dermatophyte fungi, which belong to the class Deuteromycetes (Fungi imperfecti), order Moniliales⁽³⁾. They are soil borne fungi capable of causing disease in plants and animals⁽⁴⁾. Occasionally it has been implicated in human diseases like skin ulcer, cutaneous infections, facial granuloma, superficial white onychomycosis and mycotic keratitis. It is an opportunistic fungus causing wound colonization mostly in immunocompromised⁽⁴⁾ persons. Our patient probably developed this rare fungal infection because of the use of multiple broad-spectrum antibiotics, which is known to alter the normal skin flora.

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Fig 1 : Large plaque covered with white cheesy friable material.



Fig 2 : Recurrence of white cheesy material within 24 hrs after removal.



Fig 3 : Fungal filaments with macroconidia.

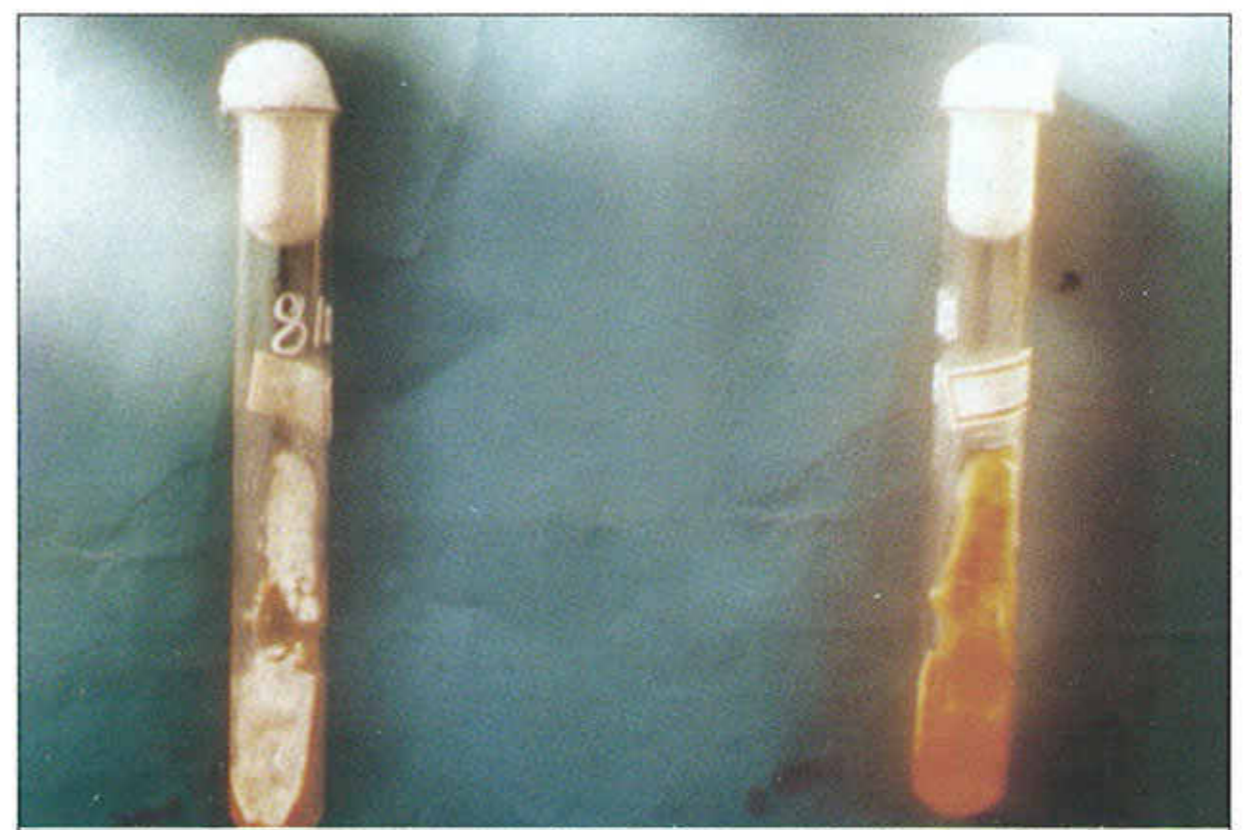


Fig 4 : Culture showing white fluffy colonies with reverse showing apricot colour.

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