Original Research Paper

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General Surgery

A RARE CASE OF DERMATACEOUS FUNGAE- PHAEOHYPOMYCOSIS PRESENTING AS MULTIPLE SUBCUTANEOUS CYSTIC SWELLINGS

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ABSTRACT Phaeohypomycosis is a group of mycotic infections caused by dermataceous fungae that contains melanin as a virulence factor. The pathogenic potential of dermataceous fungae can even affect the immnocompetent host. This organism is widespread in the environment being found in soil and decomposed plant debris. The species of phaeohypomycosis includes Exophiala, Chaetomium, Exserohilum and Wangiella. It produces wide spectrum of diseases affecting skin and even eyes, nervous system and bones. The clinical picture varies from skin nodule, deep subcutaneous abscess in a, body exposed area resulting from traumatic inoculation. We report a rare case of dermataceous fungae- phaeohypomycosis presenting as multiple subcutaneous cystic swellings.

KEYWORDS : *mycoses, subcutaneous abscess, surgical debulking, antifungal agents*

CASE STUDY

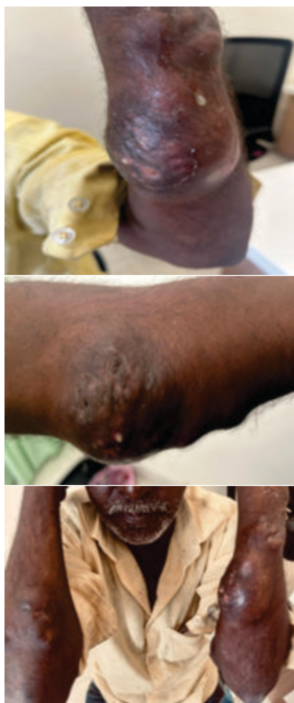
A 59 year old male farming by occupation came to the surgical out-patient unit with complaints of multiple lumps over the extremities for the past 3 years. He has no other complaints of pain, restricted movements. There is no history of fever with evening rise of temperature, chronic cough with expectoration, loss of weight, and loss of appetite. He has no history of similar ailments in his family. He is not a known case of type 2 DM, systemic hypertension, heart disease and hypothyroidism and not taking drugs for any other chronic illness. He states he has no specific addiction and tends to take mixed diet.

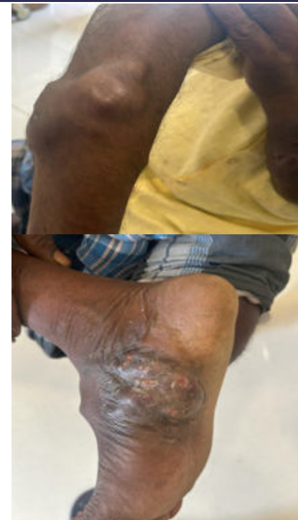
On examination, he was conscious, oriented, afebrile, no pallor, not icteric, no generalized lymphadenopathy. His BP was 120/70 mm Hg recorded in his right upper arm, pulse rate was 82/min, CVS S1S2 no murmur, RS- NVBS, CNS- NFND, P/A- soft, no hepatosplenomegaly.

Local Examination:

Multiple swellings found in both upper limbs and lower limbs, sizes of varying dimensions each approximately 5x4 cm. Surface found to be irregular. Skin stretched and shiny hyper pigmented with multiple discharging sinuses, nature of discharge was mucopurulent.

On palpating the lumps, not warmth non-tender, firm in consistency, surface bosselated, and margins irregular. Plane of the swelling found to be subcutaneous, fluctuant and non- trans-illuminant. Differential diagnosis was made as calcinosis cutis, deep fungal infection was considered.

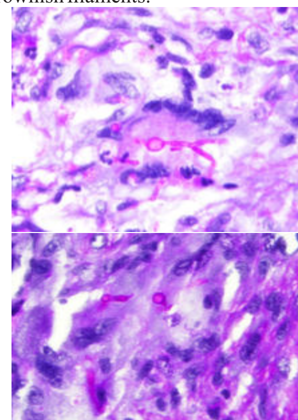




Upon doing investigations, TC – 10,500 cells/mm3, predominant increase in neutrophil count, hemoglobin status- 10.5 g/dl. His liver function and renal function tests found to be absolutely normal. Serology for HIV found to be negative.

X-rays of limbs are found to be normal.

Hence, patient proceeded with incision biopsy, which shows, hyper-keratotic, acanthotic stratified squamous epithelium with underlying stroma showing dense chronic inflammatory cell infiltrates accompanied by fibrous tissue stroma. Abundant foci show sheets and large clusters of epitheloid histiocytes and foamy macrophages. Many scattered multinucleated giant cells seen with foci showing fungal organism that shows septate hyphae with globose swelling, picture suggestive of phaeohypomycosis. Grocott's methanamine silver stain showed broad brownish filaments.



Granuloma With Pigmented Fungal Growth

Treatment Consideration

Patient planned for surgical debulking followed by anti-fungal therapy. According to that, excision of the tumor was done under local anesthesia. Few swellings were left open and healing by secondary intention, few swellings were primarily closed.

He was put on voriconazole 6mg/kg BD on day 1, 4mg/kg BD from day 2 to be continued on same dose. He was advised to take voriconazole 1 hour before food.

He was supplemented with potassium iodide (available as 20 gram powder) mixed with 1 liter of water and was stored in a glass bottle covered with black cloth. Initially, on day 1, 5 ml OD, 5 ml BD on day 2, then 5 ml TDS on third day. Since there are no signs of iodism like excess salvation, tears and sneezing, he was put maintenance dose of 50 mg/kg/day in three divided doses. As a precautionary measure, thyroid function tests were done before giving potassium iodide. Patient was followed up on a weekly basis up to 3 months. There is no evidence of relapse after surgery.

CONCLUSIONS

Subcutaneous phaeohypomycosis which present as either solitary or multiple swelling(s) which makes a clinician or surgeon either un-diagnose or under-diagnose because of the rarity of the condition. Since these rare pathological conditions is being diagnosed in the later course of the disease, patient have to be treated vigorously. Hence, surgeon must always consider such a pathological entity as differential diagnoses for skin and subcutaneous swelling(s).