AN CASE OF CUTANEOUS BOTRYOMYCOSIS

Abstract: One of our patients presented with swelling with multiple discharging sinuses over left gluteal region and an indurated large plaque over the left gluteal region, with multiple discharging sinuses. Skin biopsy revealed evidence of cutaneous botryomycosis. We report this case for its rarity and interest.

Keywords: Botryomycosis, Cutaneous

Background: Botryomycosis is a chronic, suppurative infection characterised by a granulomatous inflammatory response to bacterial pathogens, containing granules resembling sulphur granules of Actinomycosis6. The disease was discovered by Otto Bollinger (1870), name coined by Sebastiano Rivolta (1884)6. It refers to its grape-like granules (Gr.botryo = grapes) and a mistakenly implied fungal etiology (Gr.mykes=fungus)1. In 1919, the bacterial origin was discovered1. Here we report a case of Botryomycosis.

Case Report: A 43year man with history of a swelling with multiple discharging sinuses over left gluteal region since 4 years, presented as an out patient to the Department of Dermatology. On interview he also complained of severe giddiness since last 10 days and a marked loss of weight since last 1 year. The patient, a farmer by profession, was severely anemic and emaciated. Clinical examination revealed an indurated large plaque of more than 15cm in diameter, over whole of left gluteal region, extending into perineum, with multiple sinuses discharging foul smelling sero-purulent material. The patient also had bilateral tender inguinal lymphnodes. A differential diagnosis of Deep fungal Infection, Cutaneous Tuberculosis or Botryomycosis were considered. A Gram stain of the pus showed gram+ cocci in groups. Pus culture revealed growth of coagulase negative staphylococcus. ELISA for HIV was negative. Hemoglobin was 3.4gm/dl and the peripheral blood film showed a microcytic hypochromic anemia with immature cells. A skin biopsy was done and sent for histopathology.

Pathology: The pathologist reported evidence of chronic indolent infection with suggestion of sulphur granules and opined as Botryomycosis.

Management: He was treated with Inj.Cefotaxime 1 gm i.v BD and Tab.Cotrimoxazole 200 mg 2BD for 2 months. Skin lesions healed with fibrosis and atrophic scarring. The patient died, while on treatment due to cardio-respiratory failure secondary to anemia on the 15day of admission.

Discussion: Botryomycosis is a chronic granulomatous reaction to bacterial infection, containing granules resembling the sulphur granules of actinomycosis. Most cases are caused by Staphylococcus aureus6. Several organisms like Pseudomonas aeruginosa , Escherichia coli , Proteus species , Propionibacterium acnes , alpha-hemolytic streptococci , peptostreptococci and Neisseria have been isolated and implicated, singly or in combination6. Predisposing factors include trauma , immunosuppression ( HIV2 , Hyper-IgE syndrome ) , Chronic alcohoholism and diabetes mellitus.6 Lesions are most common over the limbs followed by perianal region and face. The lesions may be primarily cutaneous or secondary lesions , the primary being lungs. In the primary cutaneous form, single or multiple abscesses of skin and subcutaneous tissues break down to discharge serous fluid through multiple sinuses, and heal after a course of many months to leave atrophic scars. The general condition may remain good. Patients may present with a smaller, painful papule without sinus formation. The pulmonary form may reach the skin and present as irregular masses with multiple sinuses.6 The key to the diagnosis is the presence of a small cluster of microorganisms on biopsy6. This cluster resembles the grain of a mycetoma or sulphur granule of actinomycosis. Histopathology shows granules containing masses of bacteria with surrounding histiocytes, plasma cells , lymphocytes and foreign-body giant cells. The organisms should be identified by culture6.

This case presented with the classical morphology of multiple discharging sinuses over the perianal region , which is one of the commonest sites. The histopathology also was consistent with the diagnosis. Pus culture showed growth of coagulase negative Staphylococcus aureus. The patient responded well with antibiotics. Treatment depends on the nature of the organism and, where appropriate, antibacterial sensitivities should be determined.For S. aureus infections, flucloxacillin or erythromycin are usual. Sometimes an alternative approach such as flucloxacillin and fusidic acid can be used for very extensive lesions.6 The response is often determined by the presence or absence of underlying predisposing disease. This patient had no predisposing factors except for anemia.

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