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BLASTOMYCOSIS-LIKE PYODERMA

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A 53-year-old male having blastomycosis-like pyoderma is reported. Importance of differential diagnosis from tuberculosis and similar entities is discussed.

Key words : Pyoderma.

Blastomycosis-like pyoderma is an unusual tissue reaction, possibly to bacterial infection, manifesting as vegetating skin lesions similar to blastomycosis or warty tuberculosis. Histopathologically, it is characterised by pseudoepitheliomatous hyperplasia and multiple abscesses.[1] We are reporting a case recently observed by us.

Case Report

A 53-year-old male from Himachal Pradesh reported with a slowly enlarging lesion over the right forearm and hand for eleven months. It started as an asymptomatic warty nodule gradually increasing in size by peripheral extension, ulceration and central clearing. On examination, a large irregularly ovoid, brownish verrucoid plaque was seen on the lateral aspect of the right forearm and dorsum of hand, measuring 15×8 cm. Borders were raised, crusted, and ulcerated and discharged pus. Skin biopsy from the margin was suggestive of tuberculosis verrucosa cutis. The patient was given antitubercular treatment consisting of isonicotinic acid hydrazide, streptomycin and thiacetazone. After one year's treatment, most of the lesion healed but about a quarter of it persisted (Fig. 1). However, with further therapy there was no added improvement and the lesion started increasing in size. He was hospitalised again for further investigations and was administered a supervised regimen of INH, rifampicin and ethambutol. Six weaks treatment did not bring in appreciable improvement. A review of the previous biopsies suggested a possibility of blastomycosis-like pyoderma. The patient was successfully treated with curettage and antibiotic therapy.

Haemogram and routine investigations on urine and stools were normal. Fasting blood sugar was 193 mg%. Blood urea, serum proteins, bilirubin, creatinine, transaminases, serum calcium and skiagrams were normal. Mantoux test induration was 15×17 mm. VDRL was negative. Cultures for *Mycobacterium tuberculosis*, atypical mycobacteria and fungi were negative on three occasions. Tissue smear did not show LD bodies. Guinea pig inoculation for the growth of tubercle bacilli was negative. Pus culture grew *Staphylococcus*

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aureus and *Proteus*. Skin biopsy revealed moderate hyperkeratosis, marked acanthosis with irregular downward proliferation of the rete pegs producing a picture of pseudoepitheliomatous hyperplasia. A prominent collection of acute and chronic inflammatory cells was present in the upper dermis. Neutrophilic abscesses were evident in the dermis as well as the hyperplastic epidermis. Special stains for fungi and AFB did not demonstrate any organism.

Comments

The nosologic position of blastomycosis-like pyoderma is now firmly established with pyodermas, earlier workers however used different terminology. Azua and Pons[2] were the original workers to describe it under the title of pseudo epitheliomas cutanes. Gay and Cascos[3] termed similar cases as pyodermitis chronica vegetans von Azua. Russell[4] called it pseudoepithelioma of Azua. Brown and Kligman[5] reported two cases of mycosis-like pyoderma. Yaffe[6] was the first to use the term blastomycosis-like pyoderma for his patient who developed lesions at a tattoo site. William and Stone[7] reported a similar case and recently Su et al[8] reviewed a series of seven patients. In eight such patients reported under the title of blastomycosis-like pyoderma,[7,8] the sex ratio was equal (4:4) and the age ranged from 26 to 84 years. The characteristic lesions were either single or multiple and were located on the face, neck, forearm, hand, leg or the foot. The lesions were purulent, crusted and verrucous plaques studded with multiple pustules. They had been present for four months to six years.

The exact etiology of the blastomycosis-like pyoderma is uncertain, however, the reported cases demonstrated similar bacterial growth, the commonest organism being *Staphylococcus aureus*.[7,8] *B-streptococci*, *Pseudomonas*, *Proteus*, *E coli* and *Candida* have also been grown.[8] Most of the authors[7,8] and a textbook of dermatopathology[1] consider the pathogenesis of blastomycosis-like pyoderma as an unusual type of exaggerated, vegetating tissue reaction in patients with low resistance to bacterial infection. The patients of Su et al[8] had associated disorders which lowered their resistance to infection. Chronic granulocytic leukaemia, azathioprine and predniosolone therapy, X-ray radiation, chronic cholecystitis, pulmonary granuloma and diabetes mellitus were associated diseases in their patients. The patient under report had diabetes mellitus. William and Stone's[7] patient was obese, and Brown and Kligman's[5] patient was alcoholic. Getlik et al[9] were able to demonstrate a deficiency in the cellular immunity. Djawari and Hornstein[10] observed a decreased neutrophilic chemotaxis.

Clinicopathologically, the disease can be misdiagnosed as North American blastomycosis, cutaneous tuberculosis, atypical mycobacterial infection, bromoderma, squamous cell carcinoma and pemphigus vegetans of Hallopeau.[11] Su et al[8] have established six diagnostic criteria. These are, characteristic clinical picture, histopathologic features of pseudoepitheliomatous hyperplasia with multiple abscesses, growth of pathogenic bacteria on culture, negative culture for fungi, *Mycobacterium tuberculosis* and atypical mycobacteria, negative fungal serology and normal bromide levels in the blood. To the best of our knowledge, no such case has so far been reported from India. In the countries with rampant cutaneous tuberculosis, blastomycosis-like pyoderma should be an important differential diagnosis, particularly so in warty hyperkeratotic lesions. The incidence of this disease could be higher than what is implied in the literature, considering the common occurrence of clinically diagnosed tuberculosis with non-specific pathology. Beyt et al[12] observed that out of the thirty one patients of cutaneous tuberculosis, only eight patients had characteristic tuberculoid pathology. We feel that in all such cases with doubtful non-tuberculoid

infiltrate and pseudoepitheliomatous hyperplasia with multiple neutrophilic abscesses, a possibility of blastomycosis-like pyoderma should be kept in mind.

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