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STAPHYLOCOCCAL BOTRYOMYCOSIS OF THE GLANS PENIS

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A middle aged male had botryomycosis affecting the glans penis. There were macroscopic granules that on Gram staining showed masses of staphylococci. *Staphylococcus aureus* was isolated from the lesion. There was prompt response to surgical removal of the affected tissue in conjunction with systemic cloxacillin.

Key words : Botryomycosis, Staphylococci.

Botryomycosis, also termed staphylococcic actinophytosis,[1] granular bacteriosis,[2] and bacterial pseudomycosis,[3] is a chronic suppurating granulomatous reaction to bacterial infection, mostly staphylococcal. The characteristic feature is the presence of granules within the suppurating foci. These granules contain masses of bacteria. Two types of botryomycosis have been recognized, visceral form and the integumentary form. The latter develops most commonly on the hands, the feet and the head.[4,5] We report a case of staphylococcal botryomycosis affecting the glans penis in a middle aged male.

Case Report

A 48-year-old male was seen for a slightly painful ulcerated nodule of six months duration on the glans penis. It started as a painless nodule that gradually increased in size with softening at multiple points and finally got ulcerated. There was no preceding injury and he denied extra-marital sexual exposure. He had been getting various antibiotics, but these did not lead to any long-lasting relief. The ulcer was irregular and 2×3 cm (Fig. 1). Surface of the ulcer was covered with thick adherent yellow crusts, the forcible removal of which revealed granulation tissue and shallow sinus-like depressions. The floor of the depressions contained exudate in which many pinhead-sized, yellowish granules were seen. There was no urethral discharge. Inguinal lymph nodes on both sides were enlarged and tender. There were no other skin or mucous membrane lesions elsewhere on the body. Other systems were clinically normal. His wife was found to be healthy.

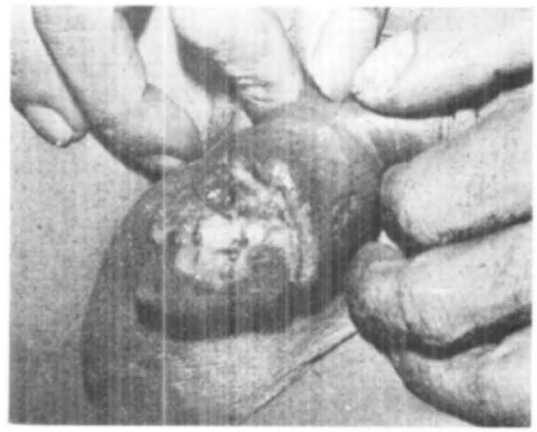

Fig. 1. Botryomycosis of the glans penis.

Routine laboratory tests on blood, urine and stools were normal. Dark-field microscopy of the exudate from the ulcer did not show *Treponema pallidum*. Smears from the ulcer were negative for Ducreyi bacilli, Donovan bodies, tubercle bacilli and amoebae. KOH preparation of the granule did not show fungi. Gram staining of the crushed granules showed masses of Gram positive cocci. Culture of the exudate yielded growth of *Staphylococcus aureus*.

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Antibiogram showed susceptibility to cloxacillin and gentamicin but resistance to penicillin, ampicillin, erythromycin, cotrimoxazole, tetracycline and cephaloridine. Blood VDRL was negative. Mantoux test was negative. Skiagram of the chest was normal. Anterior urethroscopy revealed normal urethral mucosa. Histopathological study of the lesion showed intense inflammatory reaction in the dermis consisting of neutrophils, eosinophils, lymphocytes and a few plasma cells. Many grains of different sizes and shapes were seen scattered among the inflammatory cells in the dermis.

Surgical removal of a part of the lesion and oral cloxacillin 500 mg six hourly for 10 days resulted in a significant but gradual healing of the lesion in 3 weeks. Follow up for one year showed no evidence of relapse.

Comments

Botryomycosis on the glans penis may be mistaken for various sexually transmitted diseases. Our patient had been getting various antibiotics, but resistance of *Staphylococcus aureus* to these antibiotics as evidenced by the antibiogram may be a factor for the lack of therapeutic response. The poor penetration of the drugs to the site of lesion also may be a contributory factor.[6] The pathogenesis of botryomycosis is not clear. A delicate balance between the infecting agent and the tissue resistance of the host has been suggested. The most characteristic feature in this disease is that the bacteria, instead of dispersing throughout the tissues, group together to form conglomerates and provoke a chronic inflammatory reaction. Surgical excision of the lesion in conjunction with systemic antibiotic therapy with cloxacillin resulted in complete healing of the lesion.

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