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ATYPICAL MYCOBACTERIAL INFECTION IN A CASE OF SYSTEMIC SCLEROSIS

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A case of systemic sclerosis on long term steroid therapy developed multiple abscesses in the skin and the knee joint. Atypical mycobacteria was isolated from the joint aspirate on two occasions. She responded only partially to treatment.

Key Words : Systemic sclerosis, Mycobacteria

Introduction

Atypical mycobacteria are of low virulence and infection with them is rare. However, in some people with immunosuppression the disease can occur.

Case Report

A 19- year-old girl, a known case of progressive systemic sclerosis (PSS) on prolonged steroid therapy, presented with a deep nonhealing ulcer extending into the muscle of the left thigh of 6 months duration. The lesion began as an abscess which was drained in a local hospital. Two weeks prior to admission she had developed pain and swelling of the left knee joint and she had bilateral swelling of the parotid glands. For these complaints she was treated with erythromycin, ibuprofen, and traction for 10 days and obtained relief.

After admission the ulcer showed little signs of healing. One month later she developed a respiratory infection. She was put on parenteral ampicillin and began to show mild improvement, subsequently a soft fluctuant swelling appeared on the arm above the left elbow. She also developed painful effusion of the left knee joint once again and high grade fever. The abscess on the arm was incised and 15 ml of pus was drained. This was sterile for pyogenic organisms. A blood count showed mild lymphocytosis. Blood cultures were sterile, the Widal test was negative. Sputum showed no acid fast bacilli (AFB). X-ray chest showed patchy consolidation of the right lower zone. An ELISA test for HIV was negative. The knee joint was aspirated and 10 ml pus obtained. The smear from the aspirate was positive for AFB both by Ziehl Neelsen staining and by the Auramine stains. She was then given isoniazid, rifampicin, and ethambutol. The joint aspirate sent for AFB culture showed growth at room temperature, 37° C, and 42° C in 14 days, without pigment production in the presence of light and in the dark. The colonies were yellowish - white, smooth, and easily emulsifiable. Subcultures in the dark and in the presence of light showed no pigment production. Blood cultures from the patient showed no growth. A culture from the second joint aspirate 1 week later showed the same mycobacteria in all respects.

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It was concluded that the isolate was an atypical mycobacterium, probably a nonchromogen. The ulcers, however, did not heal and the knee joint effusion showed only sight improvement. Fever of 100-101° F persisted. Her general condition showed progressive worsening and she expired 7 months after admission.

Comments

The diagnosis of atypical mycobacterial infections requires the satisfaction of certain criteria as put forward by the American Thoracic Society. A definitive diagnosis requires isolation from a closed lesion from which the specimen has to be collected and handled under sterile conditions.[1] In our case the joint aspirations were done under sterile conditions by an experienced orthopaedic surgeon. Isolation of the organism on 2 occasions within an interval of 1 week suggests that it was not a contaminant. Immunosuppression was present in this case as suggested by the presence of PSS, prolonged steroid therapy, and the poor general health.

The usual organisms associated wi skin and soft tissue infections are rap growers.[2] Joint and tendon infections a known to be produced by *M. kansasi*, *M. avium intracellulare*, and the rap growers.[1,3] In this case we could not classi the mycobacteria but it is probably nonchromogen.

This case is being reported not onl because of the rarity of the condition, bu also to highlight the importance o suspecting atypical mycobacterial infectio in the presence of cold abscesses in a immunosuppressed individual.

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