PRIMARY INOCULATION TUBERCULOSIS

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Primary inoculation tuberculosis in two children confined to the face was seen over a period of six months. The first case was an eleven-year-old boy with a painless non-healing ulcerative nodule over the left ala nasi with matted non-tender submandibular lymphadenopathy of 2 months duration. Mantoux test and biopsies of the lesion and the lymph node helped in the diagnosis. The second child was a six-year-old boy with a painless ulcerative lesion over the left cheek of 5 weeks duration. The left submandibular group of lymph nodes were enlarged, non-tender and matted. Aspiration cytology showed epithelioid cells, lymphocytes, polymorphs and eosinophils. Mantoux test negative initially became positive by 2 months. The lesion started subsiding with antitubercular treatment in both the cases.

Key words : Primary inoculation tuberculosis, Tubercular chancre.

Primary inoculation tuberculosis also known as tubercular chancre, and tubercular primary complex, results from the inoculation of *Mycobacterium tuberculosis* into the skin of a host not previously infected with the bacilli.[1] The tubercular chancre and the affected regional lymph nodes constitute the primary complex of the skin.[1] This entity has been considered uncommon, in 1930 it was estimated to constitute 0.14% of all the primary tubercular lesions.[1,2] Most patients are children, but the lesions may also occur in adolescents and adults.[1,3,4] Any part of the body may be affected, but common sites of predilection are the face and lower extremities which are readily injured.[1,3,4] We are reporting two cases of primary inoculation tuberculosis seen over a period of 6 months.

Case Reports

Case 1

An 11-year-old boy from Attingal, Trivandrum District developed a non-healing ulcerative skin lesion over the left ala nasi, with a swelling over the left submandibular area of two months duration. He was treated with antibiotics from a local hospital and since the lesion did not heal, he was referred to our department. His grandfather was having pulmonary tuberculosis. His parents and two siblings were healthy. The lesion was an ulcerative erythematous non-tender nodule 1.5 cm in size covered with a crust, on the left ala nasi. The submandibular lymph nodes on the left side were enlarged, matted and non-tender. The skin over the swelling was normal. His Mantoux test was positive (10 mm), X-ray chest and routine blood and urine examination results were within normal limits. His blood VDRL test was negative. Biopsies from the skin lesion and the enlarged submandibular lymph node both showed epithelioid cell granuloma. Thus, a diagnosis of primary tubercular chancre was made. He was treated with INH, rifampicin and ethambutol and the lesions started subsiding within one month.

Case 2

A 6-year-old boy from Trivandrum came with a painless ulcerative skin lesion over the left cheek and swelling over the left submandibular area of 5 weeks duration. There was no family history of tuberculosis. The lesion was non-tender, nodulo-ulcerative 0.5 cm in size and covered with a crust present over the left cheek near the ala nasi. The left submandibular

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lymph nodes were enlarged, non-tender and matted. The Mantoux test was negative. X-ray chest showed hilar prominence on the left side. His routine blood and urine examination were within normal limits. Aspiration cytology revealed that there were collections of epithelioid cells, lymphocytes, polymorphs and eosinophils. Thus, a provisional diagnosis of primary tubercular chancre was made. Following treatment with INH, rifampicin and streptomycin, the lesion started subsiding by two weeks. Mantoux test repeated after 2 months was positive(10 mm).

Comments

The tubercular chancre initially presents as a small papule, scab or wound with little tendency to heal.[1,5] Regional lymphadenopathy develops 3 to 8 weeks after the infection and may rarely be the only clinical sign.[3,4,6] In about half the cases, there are no systemic symptoms.[1] It occurs chiefly on the face or extremities.[1,3] Usually, the inoculation occurs in traumatised skin or mucosa.[1,3] The site of entry may be a minor scratch, sore, hang-nail or puncture wound.[1,3] In our patients, the ulcer was of two months duration in one patient and five weeks in the other. The face was the site of involvement and the submandibular lymph nodes were involved. But there was no history of any sort of trauma. Family history of pulmonary tuberculosis was present in one of the patients. The diagnosis was confirmed by skin biopsy, cytology, tissue smears and response to antituberculous treatment.

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