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UNUSUAL CUTANEOUS ULCERS IN A CASE OF MILIARY TUBERCULOSIS

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A 3 - year - old girl had multiple, large, deep, infected ulcers on the extremities and buttocks for 1 1/2 years. Additional features included malnutrition, Cushingoid facies with buffalo hump, and absence of any underlying bony involvement. Edge biopsy showed a tuberculous picture without vasculitis or acid-fast bacilli; X-ray of the chest revealed miliary tuberculosis. The ulcers, although atypical, healed completely and rapidly on anti- tuberculous therapy.

Key Words : Tuberculosis, Ulcers

Introduction

Ulcerative lesions in cutaneous tuberculosis are found mainly in scrofuloderma, gumma, and orificial tuberculosis. Unusual clinical forms may arise due to secondary infection, poverty and poor nutrition, co-existent diseases, and immunosuppression, acquired or iatrogenic.[1]

We report a case with multiple large chronic ulcers along with miliary lung tuberculosis, malnutrition, and Cushingoid features in whom the cutaneous lesions healed rapidly with anti- tuberculous therapy.

Case Report

A 3-year-old girl was brought with large non-healing ulcers on the extremities (Fig.1) and buttocks for last 1 1/2 years. The mother gave a history of a recurrent red rash developing on these areas when the child was 6 months old. Along with other modes of local and systemic therapy, she had recive 60-70 intralesional injections, indetified a steroids, within individual "boils". Breakdow of skin occurred at multiple sites followin

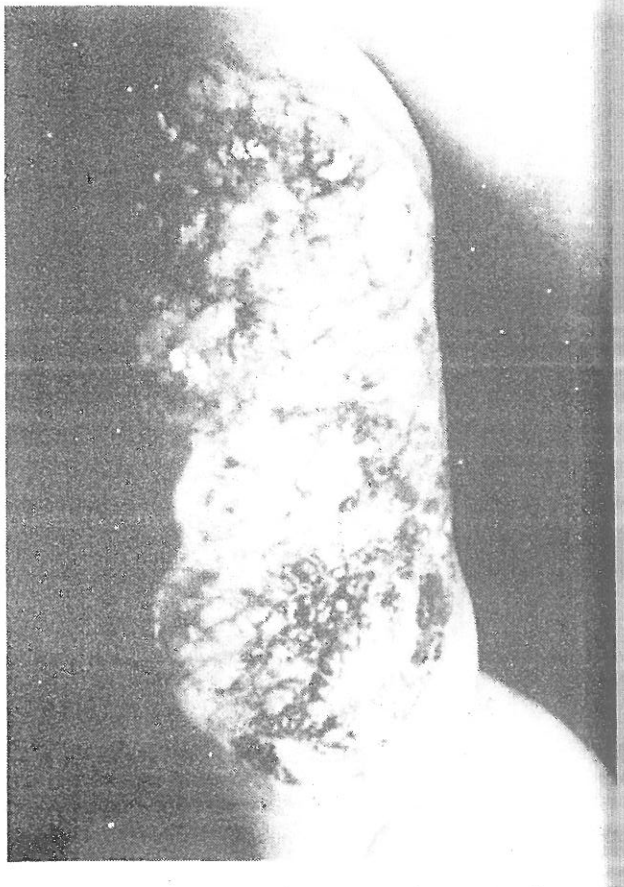

Fig. 1. Large ulcer covering the entire posterior surf of the left upper arm

these injections, and the resultant ulce

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gradully enlarged to their present size. Long term systemic and topical antibiotics had no effect.

There was puffiness of face and neck, and the child had low-grade intermittent fever with loss of appetite for 6 months. She had been a full - term normal delivery and was fully immunised. No family member was suffering from tuberculosis.

The patient was malnourished, had angular cheilitis and dental caries; moon-face, buffalo hump, and pitting pedal oedema were noted. The ulcers were located on both extremities and buttocks. Each ulcer varied between 2-8 inches in size, was circular or oval in shape and well-demarcated. The floor showed dirty-yellow slough and eschar, and the base was composed of subcutaneous and underlying tissue. The edges were inflamed, oedematous, tender, and undermined in some areas. A cellulitic lesion was observed on the right knee. Regional lymphadenopathy was present. The liver was palpable, other systems were clinically normal.

On investigation, the child was anaemic (Hb = 8.5 gm%). Total count was 6400/cmm (P = 68, L = 32) and ESR 120 mm at 1 hour. Liver function tests revealed hypo-albuminemia. Renal function was normal, VDRL test, and ELISA for HIV were negative. Pus swab from an ulcer grew *Klebsiella* and *Staphylococcus aureus*, but no acid- fast bacilli were seen.

Mantoux test was negative; X-ray chest showed miliary tuberculosis. An ultrasound of the abdomen detected hepatomegaly with normal echotexture. A

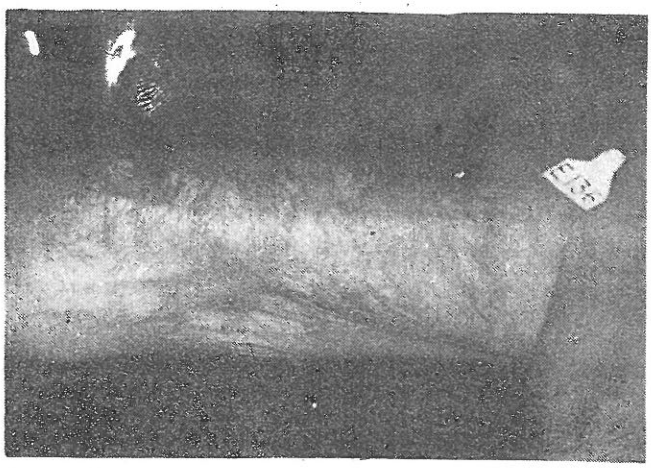

Fig. 2. Healing of the ulcer on the left upper arm with scarring

biopsy from the edge of an ulcer showed pseudoepitheliomatous hyperplasia overlying a mixed dermal infiltrate of lymphocytes, neutrophils, epithelioid cells, and incomplete giant cells. There was no sign of vasculitis and no acid-fast bacilli, but Gram-positive cocci were numerous.

Four-drug anti-tuberculous therapy was started on the basis of the X-ray chest. Two months later all ulcers had healed with scarring (Fig. 2), and her appetite and general health had improved. The patient has since completed the full course of treatment and is in good health.

Comments

There are two possibilities in the present case. The first is that the initial red rash which developed at 6 months of age was itself tuberculous in origin. Miliary cutaneous tuberculosis[2] is seen typically in infants and children as an eruption of reddish bluish papules which later are topped by a tiny vesicle. This dries to form a crust, and its removal leaves a dell. Extensor aspects of extremities and buttocks are common sites. The patient is usually severely ill. Histology

shows a tuberculoid reaction with obstruction of the vessels by the infective emboli, and plenty of acid-fast bacilli. Ulcerations may occur due to necrosis of vesicles.[3]

In our patient, the sites of ulceration, non-vasculitic tuberculoid histology, and miliary tuberculosis on chest X-ray support this possibilty; but the nature, size and duration of ulcers, lack of acid-fast bacilli, and absence of serious systemic toxic illness are against it.

The second possibility is that the original rash was innocuous, even possibly an insec tbite reaction. The local effect of intralesional steroids led to ulceration; the systemic effects of high doses of these in an infant could have depressed the immunity and activated a latent focus of pulmonary tuberculosis. Haematogenous seeding of the bacilli at the ulcer sites perpetuated the lesions and led to a non-healing state. Secondary infection, poor nutrition, and general debility added their contribution.

Since no chest X-ray was done at the outset, the exact cause and effect relationship remains unresolved. However the various features of this case viz, multiple non-healing ulcers in a background of miliary tuberculosis, showing tuberculous histology but no mycobacteria, and not fitting into any specific form of cutaneous tuberculosis, are unusual.

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