Net Letter

Multifocal scrofuloderma overlying tuberculous dactylitis in an immunocompetent child

Sir,

Scrofuloderma is a form of cutaneous tuberculosis that occurs due to contiguous spread from underlying lymph nodes, bones or joints.[1] Spina ventosa, also known as tuberculous dactylitis, is a skeletal manifestation of tuberculosis. It typically affects children up to the age of 5 years. Boyer is credited with the first anatomical description of spina ventosa while Nelaton proved the tuberculous etiology of the condition.[2] It often involves short tubular bones of the hands and feet in children and follows a benign course. It affects bones distal to the tarsus and wrist with upper limbs being more commonly affected. Plain radiography is the investigation of choice for diagnosis and follow-up. The involved bones show a diaphyseal expansile lesion, which heals gradually with sclerosis and a periosteal reaction is uncommon.[3]

A 7-year-old Kashmiri girl presented with multiple painful swellings over both hands, left forearm and right foot, which was associated with fever for six months. The lesion initially appeared over the lateral aspect of the left thumb, increased in size over a period of 15 days, followed by rupture and oozing of thick straw colored fluid. Similar lesions appeared over the right hand, left forearm and right heel. She had evening rise of temperature, night sweats and weight loss. There was no history of prior injury. She was treated with oral antibiotics and analgesics but reported no relief. Her general physical and systemic examination was normal except for discrete left axillary lymphadenopathy. She had not received BCG vaccination. Cutaneous examination showed multiple, ill defined, tender, indurated crusted plaques and depressed ulcers with violaceous margins and nodules varying in size from 1 cm to 4 cm over the left thumb, right thumb and index finger, left forearm, left elbow and right foot posterior to the ankle [Figures 1 and 2].

Baseline investigations revealed normocytic normochromic anemia, raised ESR and lymphocytosis. Blood chemistry including serum calcium, phosphate and alkaline phosphatase was normal. Retroviral serology and VDRL were non-reactive. Mantoux test was strongly positive (20 × 20 mm). Smears for acid fast bacilli, bacteria and fungi were negative. Histopathological examination of the skin biopsy showed epithelioid cell granulomas with Langhans giant cells and foci of caseation necrosis. TaqMan polymerase chain reaction and culture for *Mycobacterium tuberculosis* on Bactec medium was positive. Bacterial and fungal cultures revealed no

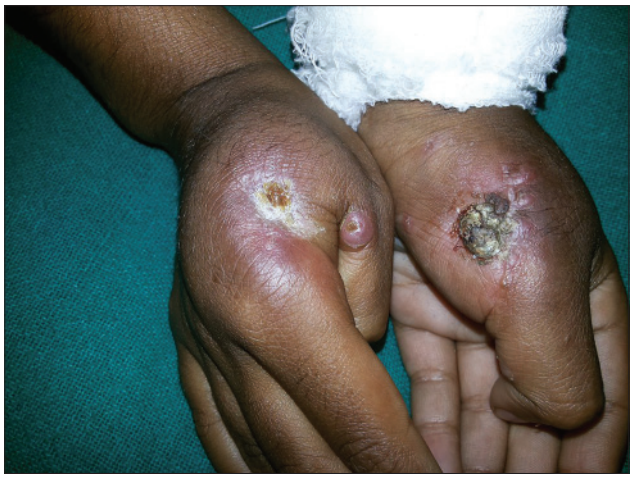

Figure 1: Multiple crusted plaques and nodules with a depressed ulcer

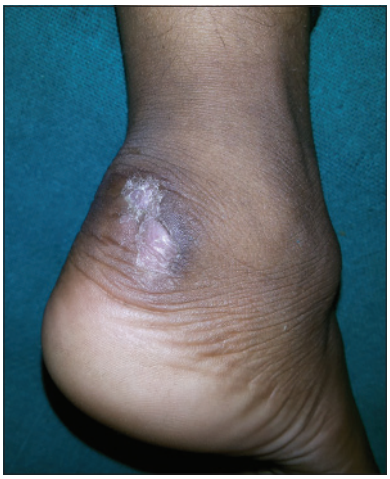

Figure 2: Indurated crusted plaque posterior to the right ankle joint

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growth. The chest radiograph was normal. Radiographs of the hands revealed a cystic expansile lesion of the diaphysis in the first left and second right metacarpals with sclerosis of the shaft. There were cortical erosions on the lateral aspect of the respective metacarpals with no periosteal reaction. Similar findings were seen in the right calcaneum and metaphysis of the left distal radius [Figures 3-6].

A diagnosis of scrofuloderma overlying tuberculous dactylitis was made and the patient was put on antitubercular therapy (DOTS category I). The drugs given were isoniazid (10 mg/kg), rifampicin (15 mg/kg), pyrazinamide (35 mg/kg), and ethambutol (20 mg/kg) for the first two months and isoniazid and rifampicin for next four months. The patient is on regular follow up, showing improvement in cutaneous and bone lesions.

Scrofuloderma is characterized by the development of painless subcutaneous swellings that evolve into cold abscesses, multiple ulcers and draining sinus tracts.[1,4] Skeletal tuberculosis accounts for only 1–5% of all tuberculosis infections and approximately 50% of these affect the spine. The short bones of the hands and feet are the most frequent location of skeletal tuberculosis in infancy and early childhood. Prior to epiphyseal fusion, the hematopoietic marrow in these bones provide a fertile field for hematogenous bacterial implantation.[5] The involved bones show a diaphyseal expansile lesion which heals gradually by sclerosis. A periosteal reaction is uncommon.[6] Our patient was 7 years old and had involvement of the calcaneum and radius in addition to the short tubular bones. The cutaneous

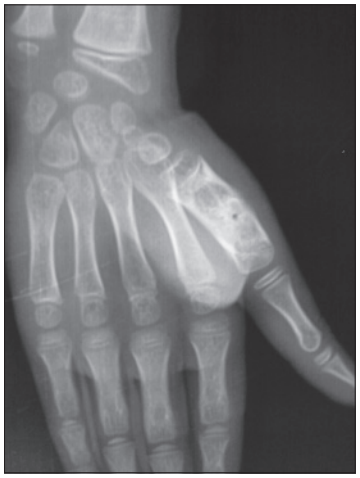

Figure 3: Ballooned out first metacarpal and a lytic lesion involving the diaphysis of the left hand

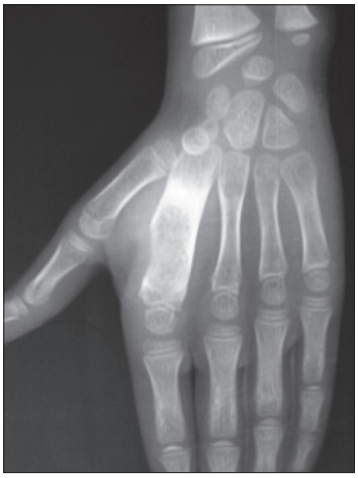

Figure 4: Broadened second metacarpal, erosion of the lateral aspect of bone and a lytic lesion in the diaphysis of the right hand, with no periosteal reaction

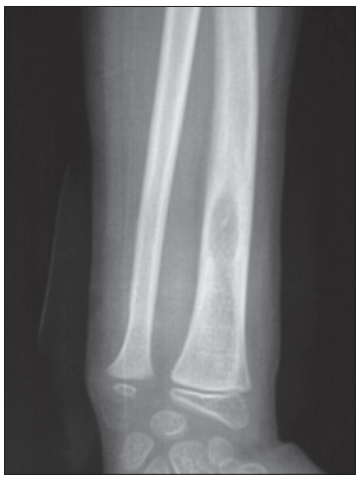

Figure 5: Lytic lesion in the metadiaphyseal region of left distal radius

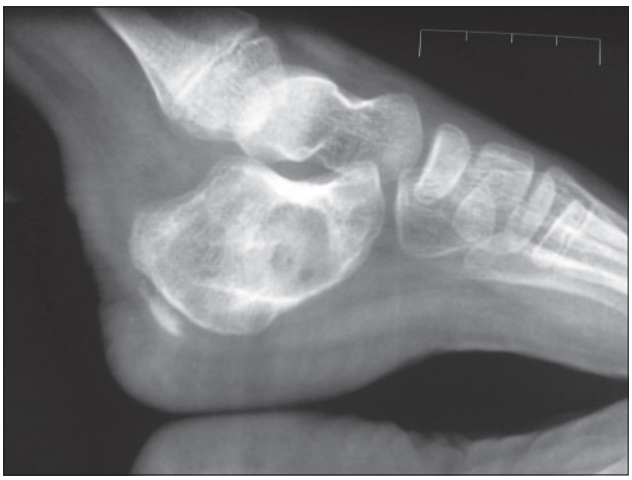

Figure 6: Broadening of right calcaneum and two lytic lesions, without any periosteal reaction

involvement was due to the contiguous spread of infection from the underlying bones.

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REFERENCES

1. Padmavaty L, Lakshmana R, Ethirajan N, Manohar U, Krishnaswamy BK. Scrofuloderma: A clinicopathological and epidemiological study. Indian J Dermatol Venerol Leprol 2008;74:700.
2. Komins C. Multiple cystic tuberculosis: A review and revised nomenclature. Br J Radiol 1952;25:1-8.
3. Zoga A, Lee VW. Paediatric case of the day. Tuberculous dactylitis and primary pulmonary tuberculosis. Am J Roentgenol 1999;173:815-7.
4. "Scrofuloderma". Dorland's illustrated medical dictionary. 28th ed. Philadelphia, Pa: WB Saunders; 1994.
5. Singhal S, Arbart A, Lanjewar A, Ranjan R. Tuberculous dactylitis: A rare manifestation of adult skeletal tuberculosis. Indian J Tuberc 2005;52:218-9.
6. Andronikou S, Smith B. Spina ventosa-tuberculous dactylitis. Arch Dis Child 2002;86:206.

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