Spina Ventosa of Metacarpal

An eight-year-old boy was brought to the hospital with the complaints of trauma to his left palm one year back, followed by abscess formation that drained by itself without any medical/ surgical intervention. However, since last one month, the swelling had reappeared. No history of fever or pain was present. At another hospital, culture of pus taken from the swelling yielded MSSA and the child was given 7 days of oral antibiotics but the swelling persisted. On his next visit, he had developed two more swellings, one below his left clavicle and the other at his left axilla. On examination, he was underweight. He had significant bilateral cervical lymphadenopathy at levels IIa, IIb, and Va. He had an abscess measuring 4 cm x 3cm below the left clavicle and another at the left axilla measuring 2 cm x 2.5 cm. He had a non-discharging sinus on his left palm with contracture (**Fig.1**). Rest of the systemic examination was within normal limits. *X*-ray of the left hand (**Fig. 2**) showed a lytic lesion in distal diaphysis of third metacarpal with sclerotic margin and associated soft tissue swelling. Mantoux test was reactive. Chest *X*-ray showed right paratracheal and right hilar lymphadenopathy. Fine needle aspiration cytology (FNAC) of his cervical, infraclavicular and axillary lymph node revealed epithelioid cell granuloma with background necrosis and mixed lymphocytic infiltrate. Pus for cartridge based nucleic acid amplification test (CBNAAT) detected *Mycobacterium tuberculosis* with Rifampicin sensitivity. The child was diagnosed with spina ventosa of metacarpal bone and started on anti-tubercular therapy (ATT).

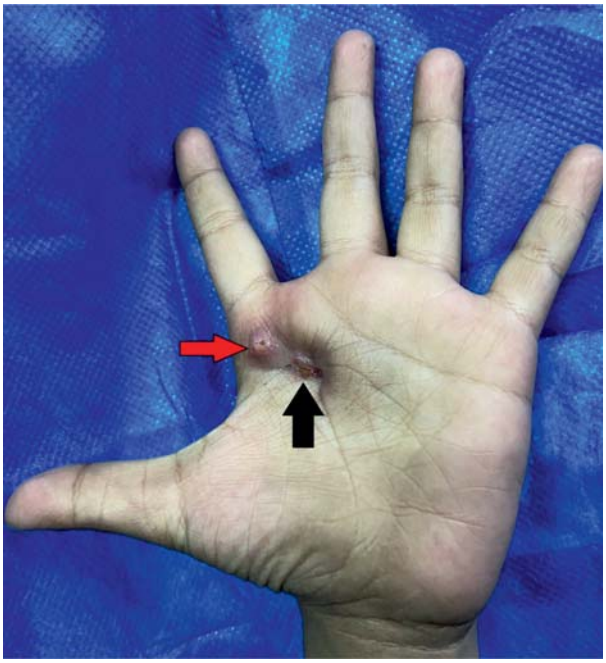

Fig. 1 Non-discharging sinus (black arrow) on palm of the left hand with contracture (grey arrow).

Spina ventosa (tuberculous dactylitis) of the short bones of the hands and feet is characterized by a cystic, ballooned-out appearance of the involved bone. It is a rare extrapulmonary manifestation with incidence of 0.6-6% in children, and is uncommon after the age of 5 years. Pain and swelling are the most common presenting features, followed by sinus discharges. Definitive diagnosis of dactylitis is made on radiographic and histopathologic examinations. The significance of a history of trauma being reported by a third of patients is unknown. Concomitant pulmonary affection is also uncommon. The absence of sequestration and presence of diffuse osteopenia distinguishes it from pyogenic osteomyelitis, which is often acutely painful and associated with high fever. Single lesion may be confused with syphilitic dactylitis (where bone is thickened by periosteal reaction). Spina ventosa responds well to anti-tubercular therapy. Current recommendations for the treatment include a two-month intensive phase of isoniazid, rifampicin, pyrazinamide, and ethambutol followed by a six- to twelve-month continuation phase of izoniazid and rifampicin. We started our patient on anti-tubercular therapy and he is currently in the intensive phase with good ongoing response in the form of non-progression of the lesion.

Mampy Das,* Mrityunjay Sakkarwal, Sumit Sural
Departments of Pediatrics and Orthopedics, Maulana Azad Medical College and associated Lok Nayak Hospital, New Delhi.
**mampydas@gmail.com*

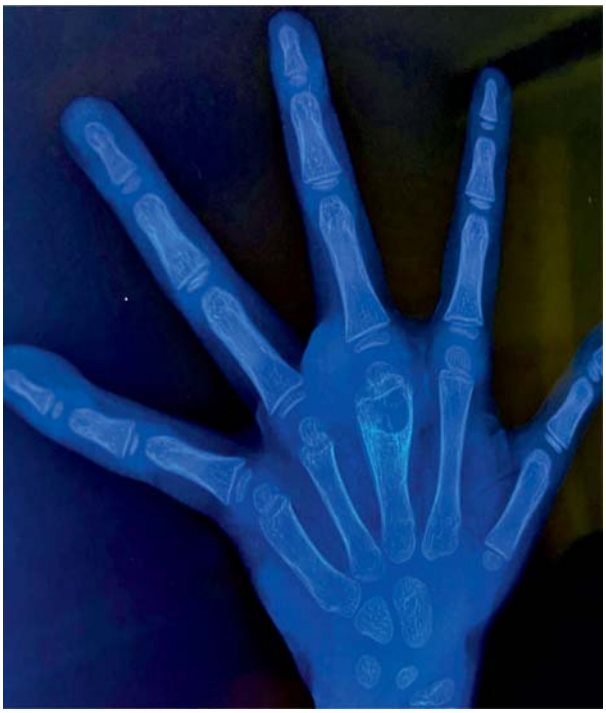

Fig. 2 *X*-ray of the left hand showing lytic lesion in the distal diaphysis of the third metacarpal with sclerotic margin and associated soft tissue swelling.