

Digital Ulcerations due to Chilblains

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A 26-year-old gentleman presented with two weeks' history of pain and swelling in fingers of both hands in the month of February 2014. Exposure to cold water aggravated pain without any changes in the color of fingers. Pain was initially accompanied by itchy rash on extensor surfaces of the fingers which improved over the next few days. However, ulcerations developed on the fingers. The patient was residing in Bagh (Azad Kashmir, Pakistan), where the daily temperatures during winter ranged between 1°C and 10°C and the minimum temperatures would at times plunge below 0°C [1]. He has never had similar episodes in the past, although he had lived in cold climates in preceding years. On examination, patient had multiple shallow ulcerations over his fingertips in close proximity to the nails as well as on palmar aspects of fingers and thumbs (Figure 1 and 2). Erythematous plaques were seen over the dorsal aspects of some fingers (Figure 3). The overlying skin had normal temperature and capillary refill was adequate. Both radial pulses were full. Complete blood count, erythrocyte sedimentation rate and serum C-reactive protein were normal. Antinuclear antibodies, anti-centromere antibodies and serum cryoglobulins were absent. Patient was advised to keep his extremities warm

Figure 1: Ulcerations on finger tips, distributed around the nails



Figure 2: Close up of an ulcer on his thumb



and was prescribed sustained release nifedipine 30mg daily for two weeks. Ulcerations healed completely within a week and the patient remained well up to the last follow-up visit a month after the initial presentation.

Chilblains reflect non-freezing tissue injury to distal extremities and less commonly to nose and ears as a result of arterial vasoconstriction. Although chilblains may be common in cold environments, digital ulcerations represent more severe disease and are not frequently encountered in clinical practice. Reliable estimates of

Figure 3: Erythematous plaques on dorsal surfaces of fingers



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incidence are not known [2]. The disease may be idiopathic, when occurring after exposure to cold, or may be associated with underlying autoimmune diseases, when the clinical course may be prolonged or complicated [3]. A more detailed evaluation is thus warranted under these circumstances.

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