

Clinical Image

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Benign subcutaneous emphysema after insect bite

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Description

A 16-year-old girl presented to the emergency department with a several days history of insect bite to the dorsal aspect of the left hand. Initially the swelling was localized to the dorsal hand, over the following four days the swelling became more diffuse involving the whole left forearm, arm, axilla and left hemithorax. She reported no fever.

The patient was admitted for close monitoring. Physical examination revealed a diffuse swelling, pain and subcutaneous emphysema. Simple radiography confirmed the presence of emphysema in the subcutaneous tissue (Figure 1).

Laboratory studies showed normal white blood cell count, AST, ALT, CPK, ESR, CRP, and negative blood culture. Orthopedic consultation was requested, his opinion was that the patient does not need surgery at the moment and this process is a benign process, and left upper limb immobilization was recommended.

Owing to the patient's history, physical examination, and normal inflammatory markers, a diagnosis of benign subcutaneous emphysema was made. She received only NSAIDs and after ten days the clinical symptoms improved. The patient discharged in good general condition. In the follow-up one month later, all the clinical symptoms of the patient were resolved.

Khan et al. reported a case with subcutaneous emphysema and stressed that Necrotizing Fasciitis (NF) should be considered in differential diagnosis. They had to perform surgery to differentiate a benign disease from NF [1].

Necrotizing fasciitis should be suspected in patients with insect bite and subcutaneous emphysema, however, benign subcutaneous emphysema should be considered in a patient with good condition and normal inflammatory markers to avoid unnecessary surgery [2].

Insect bite injuries are known to commonly cause skin infection. However, benign subcutaneous emphysema following insect bite is a rare condition. For the majority of patients, current recommendations advocate a conservative management including limb elevation and physiotherapy [3].

References

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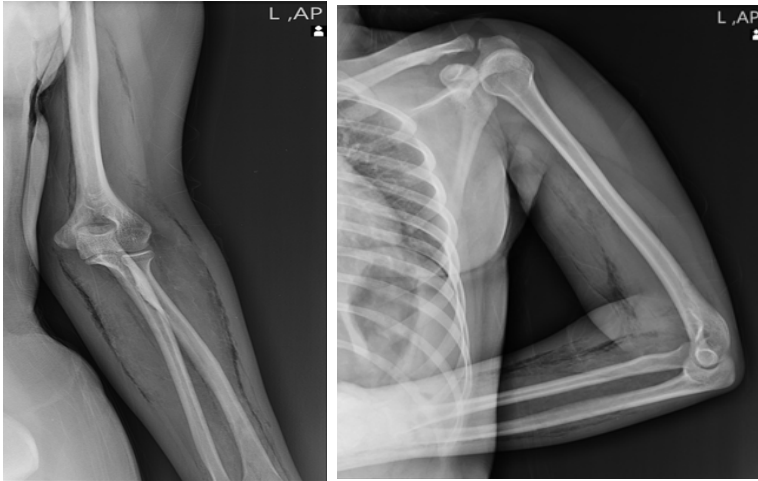


Figure 1: Subcutaneous gas