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INTERESTING MEDICAL IMAGE

Supra-Sternal Notch Tuberculous Abscess in Child

Mohamed Bhairis,[1] Massine El Hammoumi,[1] Meryem Kabiri,[2,3] *El Hassane Kabiri[1,3]

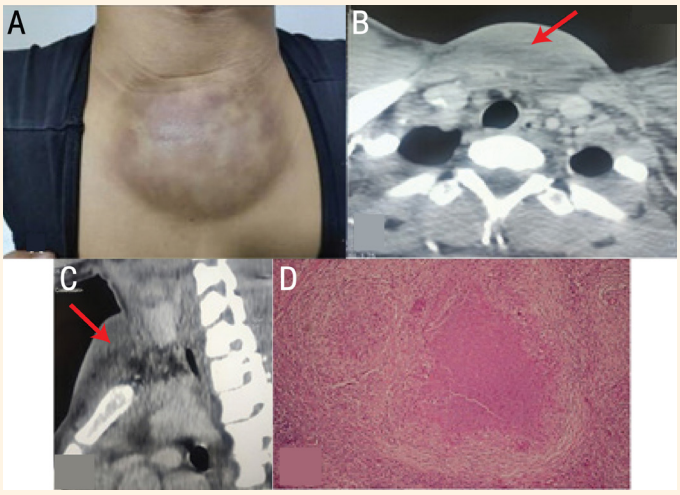

Figure 1: A: Photograph of the neck of a 14-year-old boy showing a large fluctuant swelling in the suprasternal notch. **B and C:** Computed tomography scan of the neck and chest showing a mass on suprasternal space. **D:** Haematoxylin and eosin stain at ×40 magnification showing a giganto-cellular granuloma with caseous necrosis.

A 14-year-old boy was referred to the thoracic surgery department at a university hospital in Rabat, Morocco, in 2019 for a growing swelling of the suprasternal notch observed 5 weeks prior to his admission [Figure 1A]. The vaccination protocol was complete including bacillus Calmette-Guérin. Clinical examination showed a well-limited, fluctuating swelling, 10 cm in diameter, located in the suprasternal notch, without movement on swallowing and without associated cervical or axillary nodes. Blood tests were normal, except for an elevated erythrocyte sedimentation rate (45 mm/h). An ultrasound of the neck revealed a collection of thick fluid independent of the thyroid gland. Neck and thorax computed tomography scan showed a fluid collection with densification of anterior and superior cervicothoracic fat.

Anterior and superior cervicothoracic fat measured approximately 125 × 71 × 52 mm [Figure 1B]. Fine-needle aspiration and cytology were performed with pus aspiration. With negative microbiologic evaluation and cultures, the patient underwent surgical debridement [Figure 1C]. Histopathologic examination showed the presence of a giganto-cellular granuloma with caseous necrosis [Figure 1D]; mycobacterium tuberculosis culture was negative and the diagnosis of tuberculosis was confirmed by rapid polymerase chain reaction assay.

The patient received anti-tubercular treatment as follows: 2 months of rifampicin-isoniazid-pyrazinamide and 4 months of rifampicin-isoniazid with a good clinical response.

Written consent from the patient was obtained for publication purposes.

Comment

Tuberculosis can involve and disseminate into all organs; the extrapulmonary localisation can reach 20–40% of all tuberculosis cases. Of all cases with musculoskeletal involvement, chest wall tuberculosis is a rare presentation.[1] Isolated supra-sternal soft tissue tuberculous cold abscess is exceptional. Differential diagnosis includes thyroid swelling vascular malformations, thyroglossal duct cysts, dermoid cysts or reactive and infectious lymphadenitis.[2,3]

Khalil *et al.*, Vijay and Vaishya and Asayama *et al.* reported three, one and one case of suprasternal notch

[1]*Department of Thoracic Surgery, Mohammed V Military Teaching Hospital, Rabat, Morocco;* [2]*Department of Pediatrics, Rabat Children Hospital, Rabat, Morocco;* [3]*Faculté de Médecine et de Pharmacie, Université Mohammed V, Rabat, Morocco*
**Corresponding Author's e-mail: hassankabiri@yahoo.com*

abscess, respectively.[2–4] Though it is often seen in immunocompetent individuals, immunosuppression should be determined in all cases. The clinical expression is dominated by swelling and sometimes there is sternal pain.[2]

Chest computed tomography is the best examination to demonstrate the presence of costal or sternal lysis, pleuropulmonary and mediastinal lesions. Confirmation of tuberculosis is obtained by bacteriological and/or pathological data. The geneXpert study is a rapid and efficient technique for the diagnosis of tuberculosis compared to microscopy.

Therapeutic management combines anti-tubercular medical treatment (6–12 months) with fine needle aspiration for diagnosis and small swellings but surgical debridement is mandatory to reduce the risk of recurrence in other cases.[1–4]

The resolution is generally good with the combination of anti-bacillary treatment and complete surgical debridement can be performed to minimise local complications.

AUTHORS' CONTRIBUTION

MB was involved in patient care. MEH and MK composed the manuscript. EHK edited the final draft. All authors approved the final version of the manuscript.

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