Neck Haematoma Secondary to Spontaneous External Jugular Vein Rupture

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Abstract

A patient presents to the urgent head and neck oncology clinic with a rapidly enlarging neck swelling preceded by an upper respiratory tract infection. The authors present the first reported case of spontaneous haematoma of the external jugular vein secondary to prolonged straining. This case demonstrates that in cases as such, with a localised pathology, ultrasound is a quick, non-invasive form of imaging, with the added benefit of fine needle aspiration for cytological diagnosis. In the absence of airway compromise, these cases may be managed conservatively with satisfactory outcome.

Keywords: Neck; Spontaneous; Haematoma; Swelling

Introduction

Haematomata in the head and neck commonly result from trauma, bleeding diathesis inherent or iatrogenic or surgery [1,2]. Less commonly, non-traumatic causes that have been described secondary to vascular malformations such as aneurysms or arteriovenous fistulae [3].

Spontaneous haematoma are defined as those that present without such pre-existing risk factors. Most reported cases have been reported affecting the laryngeal, retropharyngeal or sublingual spaces and present acutely with an element of airway compromise or dysphagia [4]. In most cases, no single vessel is identified. To our knowledge, this is the first case of spontaneous haematoma of the external jugular vein identified [5-7].

Case Report

A 71-years-old lady was referred to the urgent head and neck oncology clinic with a rapidly enlarging neck swelling over the preceding three weeks. This occurred following a bout of upper respiratory tract infection with associated cough and coryzal symptoms. There were no other upper aerodigestive tract or red flag symptoms of malignancy. Her past medical history included breast cancer treated with hormonal therapy. She did not smoker and had no relevant personal or family history.

Examination showed a well-defined, tender, pulsatile 2 cm swelling in the right posterior triangle with no overlying skin changes. Examination of the oral cavity and fibreoptic nasoendoscopy were unremarkable. Ultrasound revealed a well-defined 17 mm hypoechoic lesion, deep to the skin in the right posterior triangle (Figure 1).

There was no extension to the deeper structures, or to the overlying skin. There was no extension to the deeper structures, or to the overlying skin. The lesion was intimately related to the External Jugular Vein (EJV) (Figure 2). There were no pathological cervical lymph nodes; the salivary glands and thyroid were normal. Fine needle aspiration cytology under ultrasound guidance revealed paucicellular samples containing blood and its constituents, scattered macrophages and occasional stromal fragments in support of the diagnosis. There were no epithelial or malignant cells seen. The patient was managed conservatively.

Figure 1: Hypoechoic lesion in the right posterior triangle of neck, deep to the skin.

Figure 2: Lesion of interest (arrow) closely related to EJV (asterisk *).
Six weeks following the initial presentation, the patient reported complete resolution of the neck swelling, with some localised tenderness in the region. This was gradually improving, and managed with simple analgesics. Follow-up examination two months later revealed that the patient had no recurrence of neck swelling, and complete resolution of symptoms.

**Discussion**

Given the acute onset of symptoms, differential diagnoses for this patient include a laryngocele or vascular malformation. The patient denied history of joint hyper mobility, fragile skin or frequent bruising. If positive, further investigations may be warranted to rule out connective tissue disorders such as Ehlers-Danlos syndrome.

Ultrasound is a quick and non-invasive modality suitable for swellings without symptoms suggestive of deep neck spaces involvement. Fine needle aspiration may also be performed at the same time to provide cytological confirmation of diagnosis. Haematoma usually resolve spontaneously by resorption over a period of two to four weeks. In localised swellings like as in this case, patients can be managed conservatively with advice to avoid aggravating factors and followed up to ensure complete resolution. Surgical intervention is indicated in the presence of recurrence, airway compromise or complication.

In summary, spontaneous haematoma in the head and neck are rare in individuals without co-morbidities. Intrinsic factors such as prolonged straining from coughing or sneezing can be a cause for haematoma formation. In cases where the pathology is localised, ultrasound can be a non-invasive form of imaging. In the absence of airway compromise, they may be managed conservatively with satisfactory outcomes.

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**References**