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Sternocleidomastoid muscle tear-a rare complication of weight lifting that can be managed conservatively

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A 24-year-old male presented to the emergency department with a 5-day history of right- sided neck swelling and pain. In addition, he reported weakness and tingling of the right arm.

He was moving a large sheet of metal (50kg) 9 days prior. This slipped, leading to him 'jolting' his neck with pain for one-hour post-injury. Following that a painful neck swelling developed that has not changed in size.

On examination, a firm (not fluctuant), tender swelling was palpated overlying the right sternocleidomastoid (SCM) muscle and a temperature of 37.7^0 C. The patient reported c-spine tenderness as well as a significant restriction in neck movement due to pain. An ultrasound scan confirmed a tear in the SCM with an associated haematoma. An ultrasound guided aspiration at presentation did not produce an aspirate.

A CT scan was obtained due to the reported weakness and tingling of the right arm as well as concerns of damage to the internal jugular vein (IJV). This revealed no traumatic injury of the neck vessels, no stenosis, occlusion or pseudoaneurysm however there was narrowing and compression of the IJV. There was a 7.7cm x 3.3cm x 4.3cm heterogeneous multiloculated collection in the right neck, extending from the upper neck from the level of C2 to the lower limit of C5. This was located within the right perivertebral musculature. An MRI was also obtained confirming the CT findings and eliminating cord injury or abnormalities within the cervical spine.

Haematological investigations showed an increase in inflammatory markers including a white cell count of $14.56x10^9$L, neutrophils levels of $11.20x10^9$L and a CRP of 127mg/L. Drainage under general

anaesthesia is the treatment of choice for a multi-loculated collection in the neck. This was not performed because the overlying skin was normal (Figure 1) and the symptoms improved significantly from the late evening of presentation till the next morning. The patient was managed conservatively with 48 hours of 1.2g co-amoxiclav three times per day before discharge (48hrs in total). Pain was managed adequately with oral ibuprofen and paracetamol. At 6 weeks, the patient was seen to have made a complete recovery, in terms of symptoms.

A haematoma is; 'a local accumulation of blood in a tissue, space or organ'[1], with 2 mechanisms of injury leading to muscular haematomas including direct (following direct impact or contusion) and indirect (following a tear or rupture of fibres of the muscle). In this case the indirect cause of haematoma and sequential abscess formation were unusual for the site and a Medline literature search revealed no reported cases of neck hematomas under these circumstances. There have however, been cases of haematomas in the posterior triangle due to other mechanisms of trauma and one spontaneous case was noted[2]. Reports suggest that neck trauma accounts for up to 10% of all serious traumatic injuries, with blunt neck trauma representing as little as 3% of all head and neck vascular injuries[3]. Following such an injury, symptoms may include dysphonia, hoarseness, dysphagia, odynophagia, dyspnoea, pain, haemoptysis, and stridor[4]. In this case the symptoms were limited to pain and restriction in movement, however due to communication of spaces within the neck airway obstruction is potentially possible if there is spread of collection[2].

Conflict of Interest

None

Ethics statement/confirmation of patient permission

N/A

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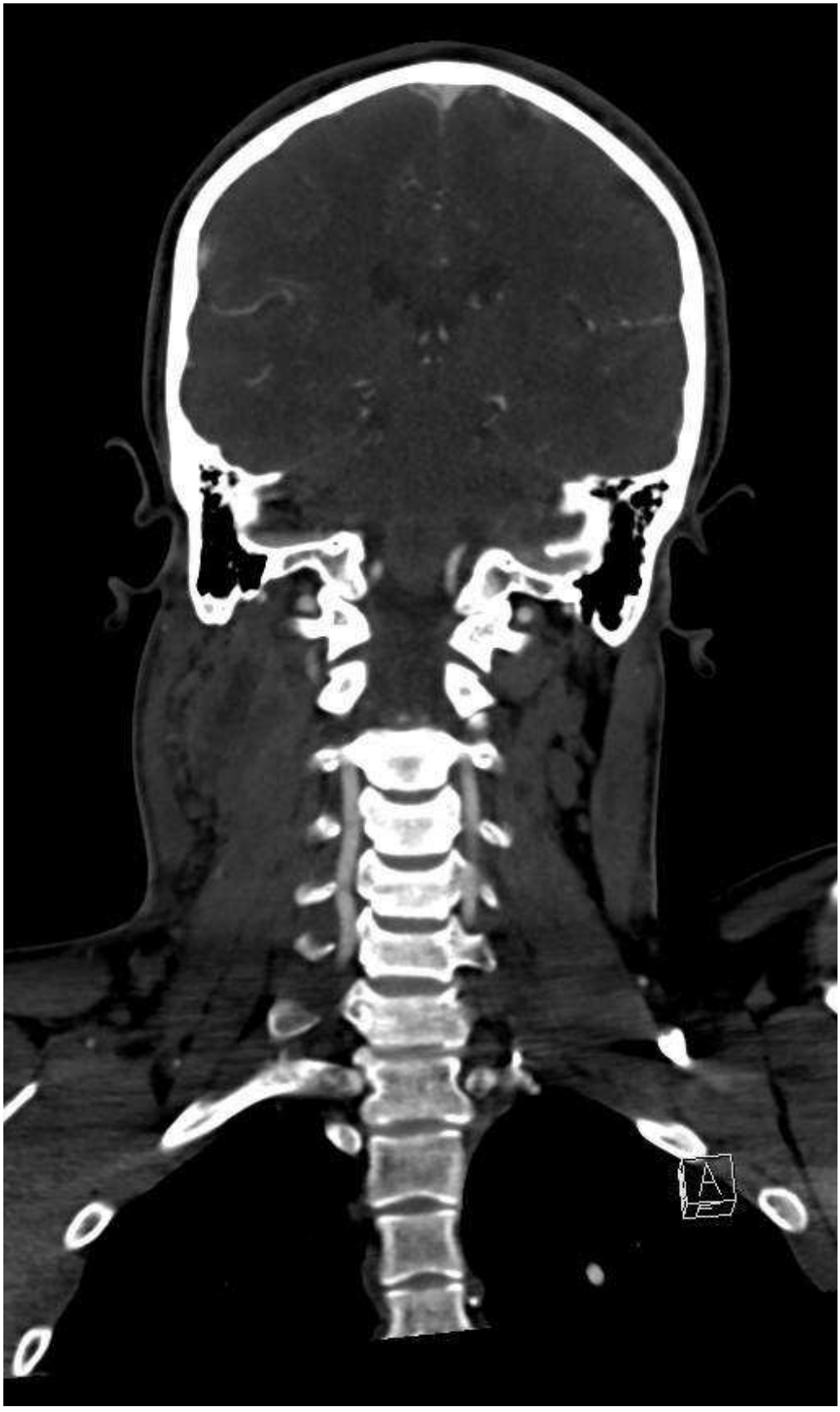
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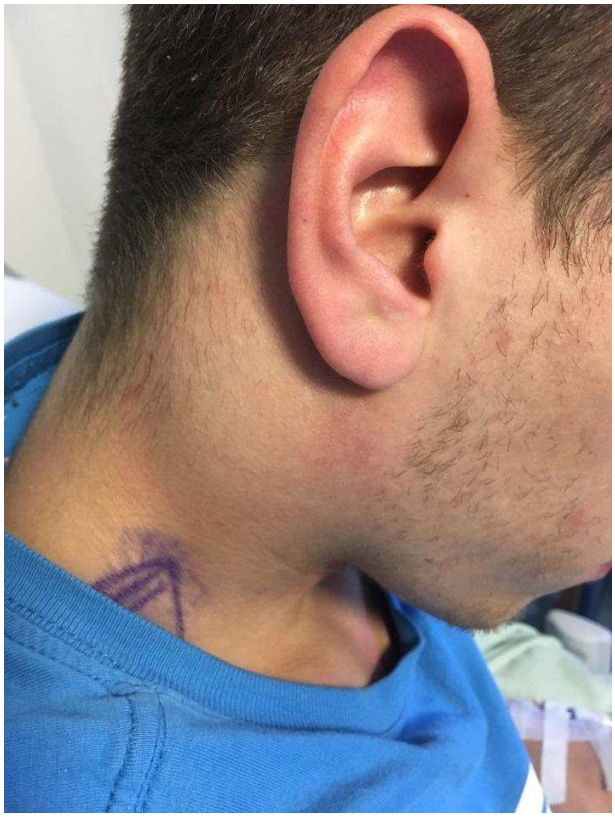

Figure 1: Imaging and clinical picture (arrow indicating heamatoma)