CASE REPORT

Traumatic rupture of sternocleidomastoid muscle following an epileptic seizure

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SUMMARY

A 29-year-old man, a known epileptic, presented to an accident and emergency department following a tonic-clonic seizure, suffering a second seizure in the department. Subsequently, he reported neck pain, swelling and stiffness. An otorhinolaryngology neck examination revealed a tender left side with two palpable masses and a reduced range of movement. Ultrasound confirmed a ruptured middle third of the left sternocleidomastoid muscle, which was successfully treated non-surgically with analgesia and intensive physiotherapy. Uncommonly, sternocleidomastoid muscle rupture has been reported following high-velocity trauma, but to the best of our knowledge this is the first case described in the literature following an epileptic seizure.

BACKGROUND

To the best of our knowledge, this is the first case described in the literature of sternocleidomastoid rupture following an epileptic seizure, and highlights the indispensable importance of a thorough clinical examination.

CASE PRESENTATION

A 29-year-old man with a history of epilepsy presented to the emergency department following a tonic-clonic seizure lasting approximately 5 min. During the seizure he fell to the ground, striking his head against a window ledge. He subsequently suffered a second short, self-limiting seizure while in the accident and emergency department.

Following these seizures he reported pain, swelling and stiffness on the left side of his neck along with difficulty rotating his head to the right and difficulty lifting it upright as well.

On examination by the otolaryngology team his neck was tender on the left side with two palpable masses ([figure 1](#)). He was noted to have reduced rotation to the right and lateral flexion to the left side. Neurological examination was normal.

INVESTIGATIONS

An ultrasound scan was performed, which showed a rupture at the middle third of the left sternocleidomastoid muscle ([figure 2](#)).

TREATMENT

The patient was managed conservatively with simple analgesia and referred for intensive physiotherapy. When he was reviewed 6 weeks later, following physiotherapy, he was found to have a significant functional improvement; however, a defect in the sternocleidomastoid muscle remained palpable.

Treatment of sternocleidomastoid muscle is primarily conservative with intensive physiotherapy. This must be initiated early as delay may lead to development of torticollis resulting in cosmetic deformity and physical restriction.

If physiotherapy is unsuccessful, a low threshold for consideration of surgical correction such as unipolar release, Z-plasty, transaxillary endoscopic release and muscle resection must be enforced to prevent subsequent restrictive deformities.¹

DISCUSSION

Epilepsy is a relatively common condition; however, epilepsy with significant secondary soft tissue injury in the neck is rare, although it has been implicated in case reports of myotendinous rupture of temporalis and carotid artery dissection.^{2 3}

Figure 1 Clinical photograph showing the left-sided neck mass.

Figure 2 Ultrasound scan showing partial rupture of the left sternocleidomastoid muscle.

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Injury to the neck musculature and cervical spine can occur secondary to hyperextension injuries during any trauma, which may result in cervical spine fracture, muscular spasm or potentially sternocleidomastoid rupture.⁴

Rupture of the sternocleidomastoid muscle is relatively uncommon but has been reported following significant trauma such as in a motor vehicle collision.⁴

Learning points

- ▶ This case demonstrates the importance of a thorough clinical examination to exclude unusual pathology.
- ▶ Do not underestimate the impact of physiological trauma on the body.
- ▶ Non-surgical interventions in management of acute sternocleidomastoid rupture can be effective.

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