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Trauma

Spinal cord injury caused by neck penetration

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The patient provided informed consent for the publication of this study.

1 | PATIENT PRESENTATION

A 51-year-old man who stabbed his anterior neck using scissors with a blade length of approximately 15 cm was transported to our hospital by ambulance. His past medical history was unremarkable. On admission, his vital signs were stable. Physical examination revealed an anterior neck incision (Figure 1), abdominal respiration, and priapism. Computed tomography revealed damage to the first tracheal cartilage, a fracture of the seventh cervical vertebra, and an injury to the lower cervical spinal cord (Figures 2 and 3). Therefore, we performed emergency surgery. We extracted the scissors while directly looking at the scissors' edge and sutured the damaged tracheal cartilage. The lower cervical spinal cord injury and fracture of the seventh cervical vertebra

FIGURE 1 Physical examination findings on patient admission.

FIGURE 2 Anterior neck penetration up to the cervical spinal cord.

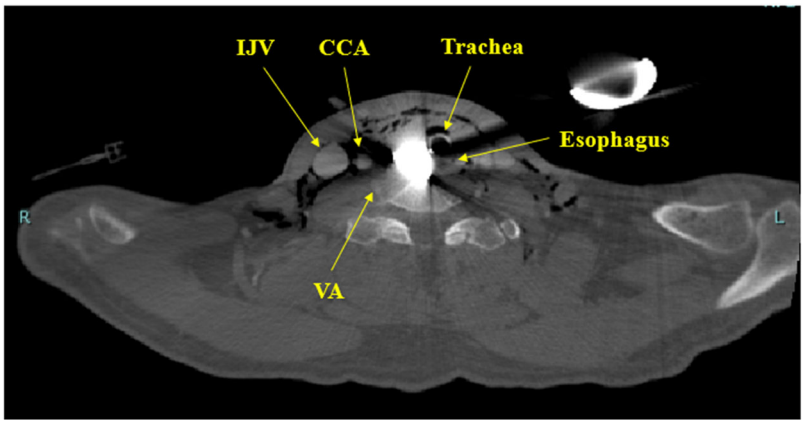

FIGURE 3 Major blood vessels and the esophagus are not injured by the scissor. CCA, common carotid artery; IJV, internal jugular vein; VA, vertebral artery.

were treated conservatively. Postoperative esophagography did not reveal any esophageal injury. Although there was no improvement in motor and sensory disturbance below the first thoracic vertebral level, improvement in the respiratory pattern was noted. On days 4 and 8 of admission, the patient was extubated and transferred to the neuropsychiatric department, respectively.

2 | DIAGNOSIS

2.1 | Zone I penetrating neck injury

A zone I penetrating neck injury refers to damage from the clavicle to the cricoid cartilage.[1] Such injuries are often fatal, with great vessel injuries, including the descending aorta.[2] In our case, the patient sustained a deep penetrating neck injury but survived without major vascular injury, which is rare. An anterior penetrating neck injury may occasionally complicate spinal cord injury. Therefore, clinicians should be aware of such potential complications when managing similar cases.

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