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THE NECK PAIN THAT STOPPED A HEART: A CASE OF CERVICAL SPINAL CORD INFARCTION

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INTRODUCTION

Spinal cord infarction (SCI) is a rare but serious neurological emergency, accounting for only 0.3–1% of all strokes. It results from the disruption of blood flow to the spinal cord, leading to ischemia, infarction, and acute neurological dysfunction. The condition is often misdiagnosed due to its rarity and variable presentation. Anterior spinal artery infarction, the most common form, typically presents with acute motor deficits, sensory disturbances, and autonomic dysfunction. This case highlights a cervical anterior spinal cord infarction, emphasizing diagnostic and management challenges.

CASE DESCRIPTION

A middle-aged female presented with sudden-onset severe neck pain, followed by progressive quadriparesis. Shortly after arrival, she developed respiratory distress and suffered cardiac arrest due to ventilatory failure. Cardiopulmonary resuscitation (CPR) was performed, achieving return of spontaneous circulation (ROSC). Clinical reassessment revealed respiratory muscle paralysis, necessitating prolonged ventilatory support.

CASE DESCRIPTION (cont)

She also developed hypotension and bradycardia due to neurogenic shock, requiring inotropic support. Initial CT imaging of the brain and cervical spine was unremarkable. However, MRI of the spine confirmed anterior spinal artery infarction at the cervical region. The patient was managed with anticoagulation, inotropic support, and intensive care admission.

DISCUSSION

Diagnosing SCI can be challenging due to its rare and nonspecific presentation. Simple neck pain may be easily overlooked, yet in certain cases, it warrants thorough evaluation. In this case, the rapid progression to quadriparesis, respiratory failure, and shock created a diagnostic dilemma, mimicking stroke, spinal trauma, and pulmonary embolism. Emergency management is crucial. Ventilatory support is necessary for respiratory muscle paralysis, while inotropic support helps stabilize neurogenic shock. Early recognition prevents further deterioration.

DISCUSSION (cont)

MRI is the gold standard for diagnosis but is not routinely performed in the ED. However, in cases with worsening neurological deficits, early MRI should be considered to guide the acute management.

CONCLUSION

SCI, though rare, can have devastating consequences, especially with cervical involvement. ED clinician plays a key role in optimizing ventilatory and inotropic support. This case underscores the importance of early suspicion, timely imaging, and aggressive supportive care particularly in managing the acute part of SCI in ED settings where immediate intervention can improve patient outcomes.

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KEYWORDS

Spinal Cord Infarction, Spinal Stroke, Neurogenic Shock, Anterior Spinal Artery, Ventilation Failure