

# A Stab in The Back: A Case Report of Traumatic Epidural Pneumorrhachis

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## INTRODUCTION

Pneumorrhachis (PR) is a rare medical entity defined by presence of air in the spinal canal. Coupled with limited guidelines for its management, its broad aetiologies and unclear pathologies can be a diagnostic challenge. Traumatic PR is divided into epidural and intradural types, whereby intradural PR correlates with the severity of the injury.

## CASE DESCRIPTION

We received a 56-year-old gentleman with multiple comorbidities (Diabetes, Hypertension, Ischemic Heart Disease and Asthma) who had a stabbed wound over the posterior of the neck. He complained of weakness over the right side of body following the injury. Upon assessment, he was not in respiratory distress. He was hypertensive with a BP of 181/124, HR 80/min. His Glasgow Coma Scale (GCS) was full with reactive pupils, power was 3/5 and 2/5 over right upper limb and lower limb respectively, with no loss of sensation towards pain stimulus and temperature over all limbs. There was a 4x2cm stab wound at the level of C6/C7 with no active bleeding, deformity or mid spinal tenderness. Sonographic evidence showed no hemopneumothorax, pericardial effusion or intraperitoneal free fluid, while chest Xray did not revealed any pneumomediastinum. Urgent CT Brain and neck was pursued, revealing PR at C2 up to C7/T1, left posterior neck region soft tissue injury with no evidence of cervical fracture or intracranial bleed. An MRI subsequently showed evidence of extradural PR at C5/C6, multilevel degenerative disc disease causing spinal stenosis (C5/C6) and right C7 exiting nerve roots impingement and cord edema from C4/C5 to C5/C6. He was treated conservatively.

## REFERENCE

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**Keyword:** Pneumorrhachis, trauma, intraspinal air, spinal canal

## DISCUSSION

Majority of traumatic PR cases are asymptomatic. Clinical diagnosis will be challenging and requires advanced imaging modalities for confirmation and to differentiate types of PR. Traumatic epidural PR is self-limiting as the air is being spontaneously reabsorbed into the blood without recurrence, however, intradural PR is a significant marker for major trauma and its severity, often associated with tension pneumocephalus. In our case, the injuries sustained causing right sided hemiparesis was managed conservatively. Prognosis is mainly influenced by the accompanying injury rather than PR itself.

## CONCLUSION

Traumatic PR is a rare pathology, and advanced imaging is vital for its diagnosis. Epidural PR is managed conservatively, without routine prophylaxis antibiotic.

