

A Rare Event of Spontaneous Internal Jugular Vein Rupture: A Case Report

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Introduction

Spontaneous internal jugular vein rupture has never been reported, based on the latest literature research. The presentation of this case was uncommon; therefore, the authors would like to report a case of spontaneous internal jugular vein rupture (IJV) and its management in a hospital.

Case Presentation

A 28-year-old lady with no medical illness was presented with an acute onset of right neck swelling. The swelling had become increasingly painful, and size has been static one day before she was presented to the hospital. Physical examination revealed a right-sided neck swelling of 10 × 10 cm in size, that extended into the anterior midline. Contrast enhanced computed tomography (CECT) with complimentary carotid Doppler showed a large intramuscular mass sized 4.7 × 8.5 × 8.8 cm (AP × W × CC) at the right anterior neck causing tracheal deviation to the left. Additionally, contrast opacification was seen surrounding the hematoma, which was suggestive of IJV rupture and absence of communication of vessels between IJV and external jugular vein (EJV). Patient underwent right neck exploration and excision of right IJV. Proximal and distal control of vessels were achieved prior to the ligation of IJV. Intraoperative findings showed rupture of IJV and hematoma collection posterior to SCM muscle. The histopathology examination shows inflammatory cells (i.e. predominant neutrophils admixed with some lymphocytes and plasma cells) with reduced smooth muscle layer and markedly thickened intima suggestive of vascular malformation. Other differentials included vascular ectasia.

Conclusion

Spontaneous IJV rupture is a rare condition, which may occur despite the absence of any early signs and symptoms from the neck region. This study demonstrated that excision and ligation of IJV are safe to perform in this case. Thus, this method can be used to treat spontaneous jugular vein rupture.

Figure 1: Position of the neck swelling from anterior and lateral positions



Figure 2: Serial contrast-induced CT neck

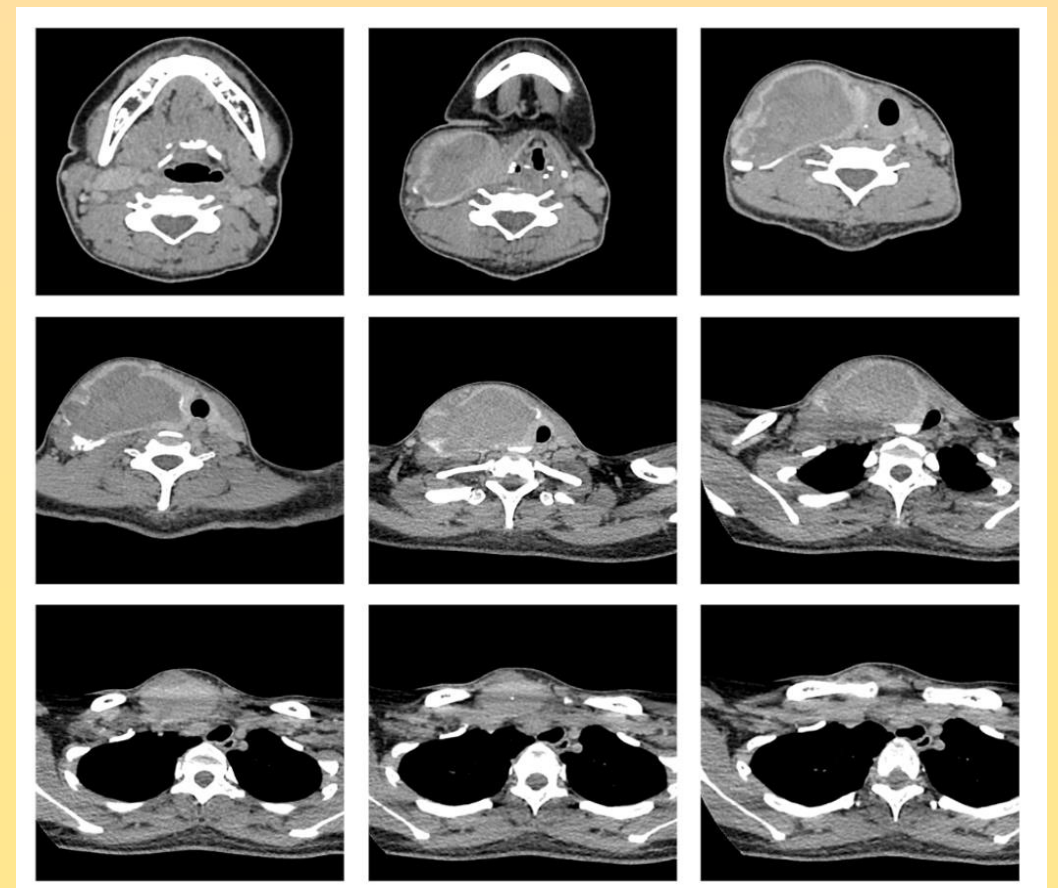


Figure 3: Proximal and distal control of IJV with SCM muscle that retracted laterally.

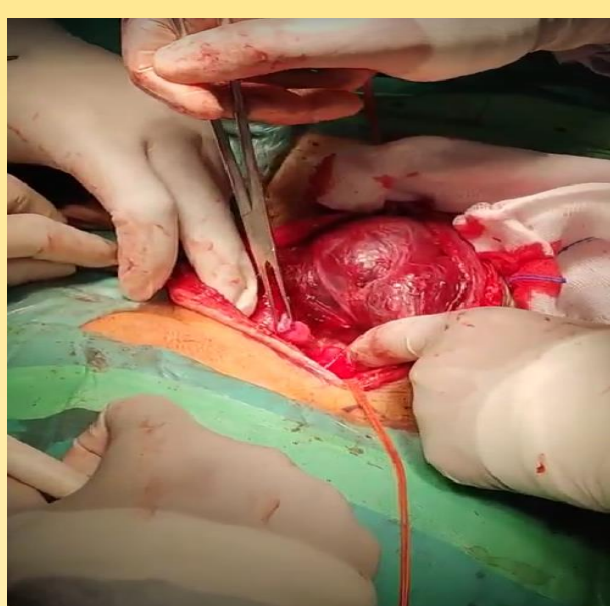


Figure 4: Ecstatic IJV retracted laterally.



Figure 5: Evacuation of hematoma

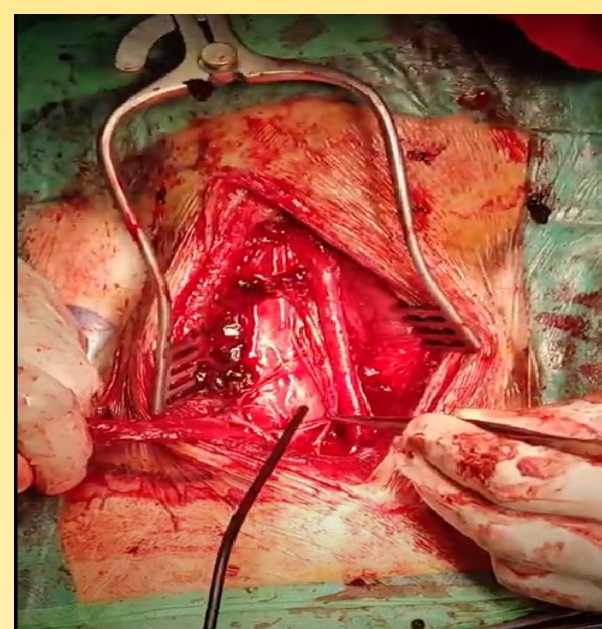


Figure 6: Operative area post ligation of proximal end

