Case Report

Internal jugular vein phlebectasia (IJP): A rare neck swelling in 14 years old girl

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Internal jugular phlebectasia (IJP) is a rare disease in which there is a fusiform dilatation of internal jugular vein, usually presenting as a neck mass in children. Accurate diagnosis from careful history, physical examination, and radiological study can be made. This case report intends to stress the importance of keeping IJP as differential diagnosis while dealing with such a swelling to avoid invasive investigations and inappropriate treatment [1, 2].

Internal jugular phlebectasia (IJP) is a congenital fusiform dilatation of the internal jugular vein that appears as a soft, compressible mass in the neck during straining or is triggered by the Valsalva maneuver [3, 4]. The possible differential diagnosis for the swelling could include a laryngocele, branchial cyst, cystic hygroma, cavernous hemangioma, and superior mediastinal cysts. This can affect any neck vein, especially internal jugular, external jugular, anterior jugular, superficial communicus in decreasing order [5].

Color Doppler imaging confirms the diagnosis and is the gold standard, also CT venography was done [6, 7]. Our approach offers another surgical option to the treatment of the jugular vein phlebectasia with excellent results as it cures the patient of the swelling and at the same time does not hamper the venous drainage of the brain [8].

Key Words: *Vascular tinnitus; Jugular vein anomalies; Vertigo; Phlebectzia; Neck swelling; Vein banding*

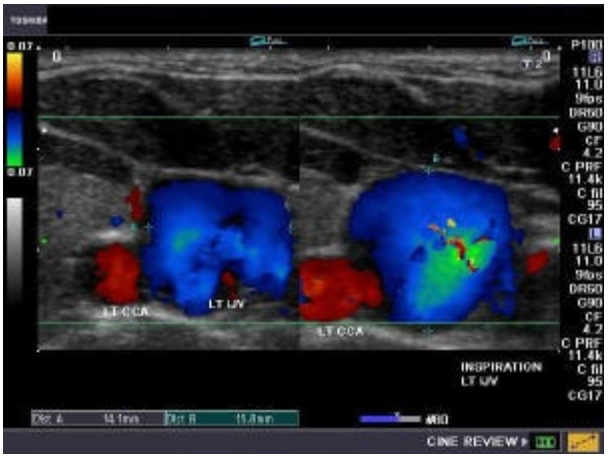
INFORMATION ABOUT THE CASE

A 14 years old girl came to Mansoura new general (international) hospital outpatient clinic at February 2019 with history of swelling appearing on the left side of the neck only on straining, coughing, or during a Valsalva maneuver. Diagnosis of left IJP was made. Exploration and wrapping the dilated segment in an 8-mm-diameter polytetrafluoroethylene (PTFE) tube graft was done.

CASE REPORT

A 14-year-old girl presented to us with history of a swelling appearing only on the right side of the neck on straining and coughing for the last 5 months. Swelling was gradual in onset and slowly progressive in nature. It was not associated with any other features like pain, change of voice, facial congestion, and difficulty in swallowing or breathing. On clinical examination, there was a soft cystic swelling over lower one-third of right side of the neck, apparent only on straining, coughing, or performing Valsalva maneuver, being completely undetected otherwise. Local temperature was not raised, the swelling was non tender, and it was not possible to get below the swelling. There was no lymphadenopathy, pulsation, or bruit. General examination was normal otherwise. X-ray neck revealed no widening or air at the region of the mass, thus excluding laryngocele.

Color Doppler was done which revealed internal jugular vein dilatation upon Valsalva maneuver and confirmed the diagnosis of IJP. Since the swelling had increased to a noticeable size upon minimal exertion, which made her mother worried, the girl was admitted to our department and the decision of surgery was made (Figure 1-2)



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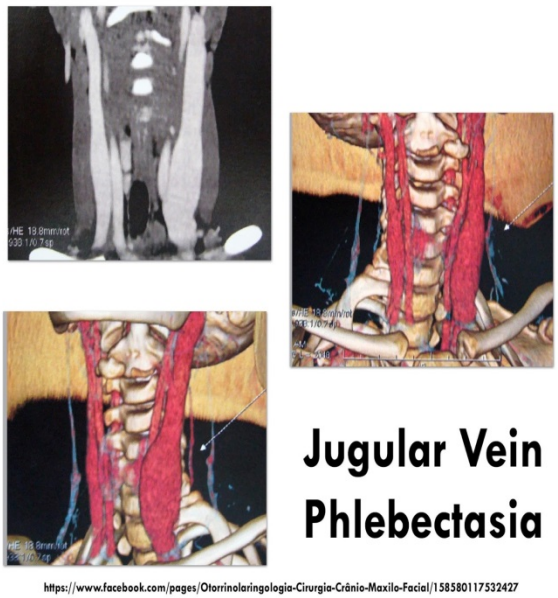
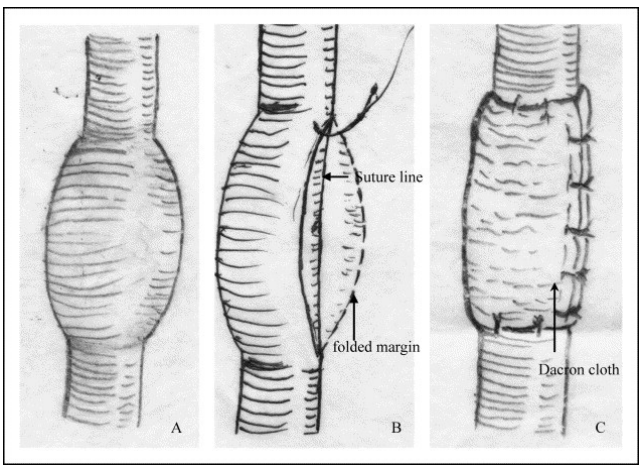


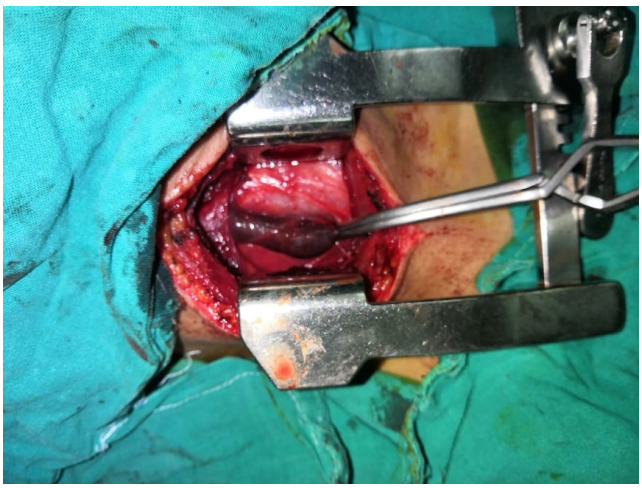
Figure 1-2) duplex view and CT of jugular phlebectazia.

SURGICAL PROCEDURE

Under general anesthesia, Exploration and wrapping the dilated segment in an 8-mm-diameter PTFE tube graft was planned. An oblique incision over the anterior margin of the left sternocleidomastoid was made and the whole of the internal jugular vein was dissected out of the carotid sheath from its origin at the base of the skull to its drainage in subclavian vein. The tributaries of the internal jugular vein were ligated and divided; the PTFE graft was cut open longitudinally and wrapped around the vein in its entire extent.

Head high position was given causing the vein to collapse and the cut edges of the graft were sutured to each other using 3-0 silk sutures on an a traumatic needle. Care was taken to prevent inadvertent damage to the jugular vein or the contents of the carotid sheath. This reinforcement prevented the vein from dilating and at the same time preserved its function. On follow up the swelling disappear with coughing or straining with satisfying outcome (Figure 3-5).





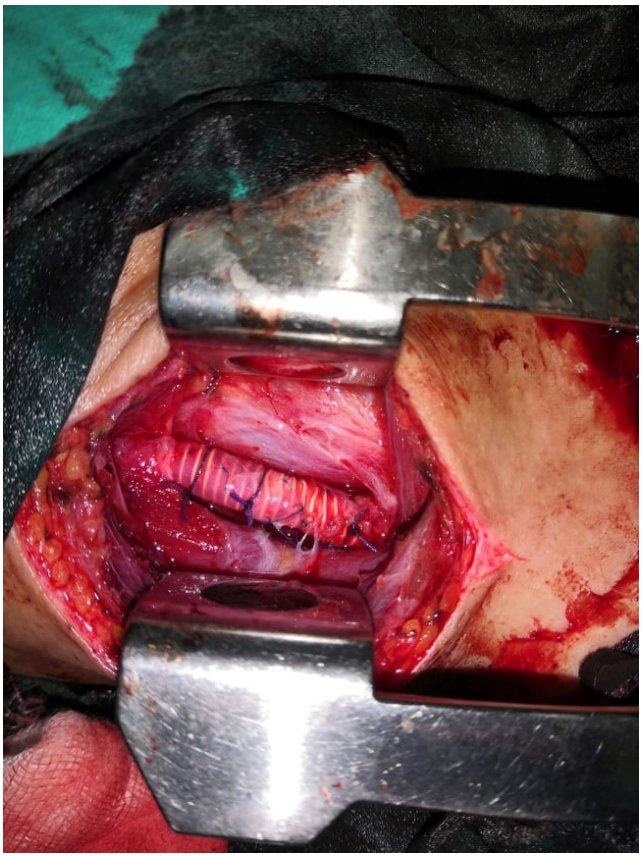


Figure 3-5) surgical procedure of jugular vein phlebectazia.

CONCLUSION

In most surgical cases reported, the internal jugular vein and associated veins have been ligated, with the loss of the normal venous drainage pattern on that side. Other interventions described include longitudinal constriction suture venoplasty and partial resection of the phlebectasia. Both options have been reported to be safe and successful in eliminating the phlebectasia. Whereas our approach offers another surgical option to the treatment of the jugular vein phlebectasia with excellent results, as it cured the patient of the swelling and at the same time did not hamper the venous drainage of the brain.

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