

## **UNILATERAL ABSENCE OF THE EXTERNAL JUGULAR VEIN - A RARE ANOMALY**

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The superficial veins of the neck, especially the external jugular vein (EJV) are increasingly being used for establishing reliable central venous access for haemodynamic monitoring and long-term intravenous therapies. As these veins show numerous variations their exploration is important to gain a better anatomic knowledge of the neck.

The EJV, the most important vein providing blood return from the face and scalp is formed in the substance of the parotid gland at the level of the angle of the mandible by the union of the posterior auricular vein and the posterior division of the retromandibular vein. It descends vertically in the superficial fascia to mid clavicle undercover of the platysma to terminate in the subclavian vein.

During student anatomic dissections of 36 formalin preserved adult cadavers (22 males and 14 females) in the age range of 26 to 87 years a study was initiated to investigate into the numerous variations of the superficial veins. Evaluation of 72 neck halves for variations of the EJV revealed its presence in 71 cases (98.6%) but it was completely absent on the right side of one male cadaver. In this poster we present the arrangement of superficial neck veins in the absence of the EJV. It was noted that the tributaries forming the EJV in the region of the parotid gland, namely the posterior auricular vein and the posterior division of the retromandibular vein were joining the common facial vein (FV) to drain into the internal jugular vein (IJV). It was also observed that the tributaries of the EJV near its termination, the suprascapular, transverse cervical and the anterior jugular veins were directly flowing into the subclavian vein. Both the FV and the IJV were unusually larger than their counterparts on the opposite side and the measurement of diameters of these vessels using a high precision digital caliper revealed the diameters of the FV on the right and left sides to be 7.27 mm and 5.59 mm respectively and the IJV to be 14.38 mm and 8.38 mm respectively. The anomalous patterns found in our study could be explained in terms of the regression and retention of various parts of the fetal veins found during early development.

As this anomaly is not documented in the literature previously it may be considered a rare variant of the EJV. A good knowledge of the variations associated with the EJV will be useful to the clinician as this vein is increasingly being used for central venous catheterization.