Unusual Drainage of Common Facial Vein
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Abstract: Normally the common facial vein after its formation it drains into internal jugular vein. The external jugular vein drains in to the subclavian vein. But here we found a case, during routine dissection of head and neck about 50 years old male cadaver, the common facial vein was given a tributary to the internal jugular vein, then it was running downwards to join the external jugular vein. Then it was draining into the subclavian vein. We also discuss its development and clinical importance.

Keywords: Common Facial Vein, External Jugular Vein, Internal Jugular Vein, Subclavian Vein.

Introduction

Normally the common facial vein is formed by the union of facial vein and anterior division of retromandibular vein. Then it runs on the inferior surface of superficial part of the submandibular gland, finely it drains into internal jugular vein. The external jugular vein is formed by union of posterior division of retromandibular vein and posterior auricular vein. Then it runs obliquely on the sternocleidomastoid muscle to drain to the subclavian vein.

Case Study:
During routine dissection of 50 years old male cadaver in the left head and neck in the year 2012, Dept. of Anatomy, KMCT Medical College, Manassery, Calicut, Kerala, India.

Observation:
During routine dissection of 50-year-old male cadaver, in left side of head and neck we found a case, the common facial vein after its formation it was given a tributary to the internal jugular vein then it was running downward medially on the superior belly of omohyoid and sternothyroid. Just above the sternoclavicular joint, taken a lateral deviation then running horizontally to form common trunk with the external jugular vein. That common trunk was draining to the subclavian vein.

Fig.1: SCV-Subclavian vein, BCV-Brachiocephalic vein, EJV-External jugular vein, SCM-Sternocleidomastoid, CFV-Common facial vein, SOH-Superior belli of omohyoid, IJV-Internal jugular vein, CCA-Common carotid artery, FV-Facial vein, ARM-Anterior division of retromandibular vein and -Common trunk of EJV & CFV.

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Discussion

- Variation of superficial veins of head and neck though common, important clinically.
- Bertha et al., (2011) [1] found in three specimens, the common facial vein opened into the external jugular vein. In one specimen, on the right side, the common facial vein ran separately for almost the whole length of the neck and opened into the external jugular vein. In two other cadavers, the left common facial vein drained into the external jugular vein, while the right vein drained into the internal jugular vein.
- Anterior facial vein ending as EJV was noticed here possibly facial vein took over the territory of primitive maxillary vein and joined retromandibular vein, repited by Pikkieff, (1937). [2] Choudhary also described similar anatomy (1997). [3]
- The facial vein joins with RMV at higher level in the right parotid gland has been reported by Kopuz et al., (1995). [5]
- Right facial vein draining into the superficial temporal vein, 5mm cranial to an undivided RMV was also reported by Peuker et al., (2001). [6]
- Compared with available literature, which showed that present anomaly is very rare found a solitary case of variation.

Development:

Superficial veins of head and neck develops from superficial plexus of the capillaries, which ultimately form primary head vein. Large channels are formed by enlargement of individual capillaries (Hamilton, Boyd and Mossman, 1972). [8, 9, 10]

Clinical Importance:

- Formation and termination of the common facial veins are common. A thorough understanding and knowledge of the variations are essential in order to avoid complications during clinical procedures.
- External jugular vein may give diagnostic signs of heart failure.
- Techniques of central venous catheterization are now of great clinical importance both to measure central venous pressure (CVP), for practical purpose the pressure within the right atrium, and also to allow rapid blood replacement and long term intravenous feeding by means of glucose, amino acids and fats.

References


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