

Abstract:

Introduction: We determine the location of the common facial vein (CFV) in a sample of neonates and assess the safety of this vein as an alternative access route for a central venous catheter (CVC).

Materials and methods: We dissected both the left and right sides of the neck region of 24 neonatal, formalin-fixed cadavers, exposing the underlying soft tissues and neurovascular structures. We identified the CFV, which we then pinned together with the internal jugular vein, cervical branch of facial nerve, marginal mandibular branch of the facial nerve, the cricoid cartilage, brachiocephalic vein, and the mastoid and sternal attachments of the sternocleidomastoid. We measured the CFV and the related pinned structures.

Results: In neonates, the CFV intersected the anterior border of sternocleidomastoid on average 19.53 mm (left) and 21.73 mm (right) from the sternal attachment of the sternocleidomastoid.

Conclusion: In neonates, we found the CFV inferior to the upper one third, and just superior to half of the length of the sternocleidomastoid, indicating a possible “safe-zone” where a skin incision could be made over the anteromedial border of sternocleidomastoid. The CFV is easily identified from surrounding landmarks; and could be used as a safe, alternative route for inserting a CVC if the average length (8.72 mm) and diameter (1.50 mm) of the CFV is taken into account.

Reference:

van Tonder DJ, Keough N, van Niekerk ML, van Schoor AN. The position of the common facial vein in neonates: an alternate route for central venous catheter placement. *Clin Anat.* 2020 Sep 28. doi: 10.1002/ca.23685. Epub ahead of print. PMID: 32986893.