

“This pilot study has been designed to evaluate the feasibility of the mandibular bone for the use of an intraosseous vascular access in a cadaver model” Goldschalt et al (2014).

Reference:

Goldschalt, C., Doll, S., Ihle, B., Kirsch, J. and Mutzbauer, T.S. (2014) Intraosseous Vascular Access through the Anterior Mandible - A Cadaver Model Pilot Study. PLoS One. 9(11), p.e112686.

Intraosseous vascular access through the mandible bone [@ivteam](http://ctt.ec/ACc3b+) #ivteam

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Abstract:

BACKGROUND: Several insertion sites have been described for intraosseous puncture in cases of emergencies when a conventional vascular access cannot be established. This pilot study has been designed to evaluate the feasibility of the mandibular bone for the use of an intraosseous vascular access in a cadaver model.

METHODOLOGY/PRINCIPAL FINDINGS: 17 dentistry and 16 medical students participating in a voluntary course received a short introduction into the method and subsequently used the battery powered EZ-IO system with a 15 mm cannula for a puncture of the anterior mandible in 33 cadavers. The time needed to perform each procedure was evaluated. India ink was injected into the accesses and during the anatomy course cadavers were dissected to retrace the success or failure of the puncture. Dental students needed 25.5 ± 18.9 (mean \pm standard deviation) s and medical students 33 ± 20.4 s for the procedure ($p = 0.18$). Floor of mouth extravasation occurred in both groups in 3 cases. Success rates were 82 and 75% ($p = 0.93$).

CONCLUSIONS/SIGNIFICANCE: Despite floor of mouth extravasation of injected fluid into a mandibular intraosseous access might severely complicate this procedure, the anterior mandible may be helpful as an alternative to other intraosseous and intravenous insertion sites when these are not available in medical emergencies.

Full Text

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