How to pinpoint the greater palatine foramen: a metrical analysis applied to a contemporary skeletal collection

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Anatomy of greater palatine foramen has acquired a growing relevance in the fields of dentistry, maxillofacial surgery and otorhinolaryngology [1,2]. Several publications are available concerning the collocation of greater palatine foramen; however available literature has so far focused on few metrical measurements and has not yet performed a complete analysis for the localization of the greater palatine foramen. This study provides a novel approach to the metrical assessment of the position of the greater palatine foramen on 100 skulls belonging to the Milanese contemporary collection, based on six linear measurements and two angles. Possible differences according to sex and side were assessed through two-way ANOVA test (p<0.05). Statistically significant differences according to sex were found for the distances of the greater palatine foramen from: the intermaxillary suture, the incisive foramen, the posterior palatal border, the most posterior point of the palate; palatal length; the position of the greater palatine foramen relative to palatal length (p<0.05). For what concerns side, only the distance from intermaxillary suture, from the most posterior point of the palate and the angle at the incisive foramen showed statistically significant differences (p<0.05). Results provide a complete metrical assessment of the localization of the greater palatine foramen and additional data for the assessment of differences according to sex and side.

References

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Keywords -

Anatomy, greater palatine foramen, lesser palatine foramen, maxillary nerve block, maxillofacial surgery