

Biometric features of facial foramina in adult Kenyan skulls

Abstract:

Several studies have indicated ethnic, age and sex-related variations in the position and size of the facial foramina. The present study reports the biometric features of the mental foramen (MF), and infraorbital (IO), supraorbital (SO), and zygomaticofacial (ZF) foramina in a sample of adult Kenyan skulls. One hundred and four adult human skulls were evaluated for the sizes, positions, multiplicity, symmetry and geometries of the MF, IO, SO, and ZF foramina. Our observations reveal that the MF was present in all 104 skulls. The distance of the mental foramina from the symphysis menti ranged from 16.5 mm to 34.0 mm. The IO foramina were multiple in 5% of the skulls. The IO foramen was positioned 6.26 ± 1.8 mm from the inferior orbital margin and 32.87 ± 3 mm from the superior alveolar margins, respectively. The distance from the superior alveolar process was greater in males. The distance of the MF, IO and SO from the midline was about 27 mm. ZF were absent in 3-4% of the skulls and multiple in 50% of the skulls. Ten percent of the supraorbital passages were foramina; 60% were notches, while the rest were both notches and foramina. In conclusion, the biometric characteristics of the facial foramina reveal variations in Kenyan skulls. Clinicians operating in this area should be aware of this anatomy and dimorphic sexual features when anaesthetizing and operating in the facial region.