

Anatomical study of the pterygospinous and pterygoalar bony bridges and foramens in dried crania and its clinical relevance [Estudio anatómico de los puentes óseos y forámenes pterigoespinoso y Pterigoalar en cráneos secos y su relevancia clínica]

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The ossification of the intrinsic ligaments of the sphenoid bone has been reported in the literature. The presence of bony bridges by ossification of the pterygospinous and pterygoalar ligaments has clinical significance in the infratemporal fossa contents. The purpose of this study is to analyze the prevalence of ossification of these ligaments and assess morphometrically the pterygospinous (Civinini's) and pterygoalar (crotaphitico-buccinatorius) foramens. A total of 312 human skulls from the collection of Universidade Federal de São Paulo (UNIFESP) were used to assess the presence of total or partial ossification in pterygospinous (Types I and II) and pterygoalar (Types III and IV) ligaments. Of the sample, 37.18% had some degree of ossification; in Type I, ossification was found in 1.6%, while Types II, III and IV had 13.14, 3.84, and 22.43%, respectively. The pterygospinous foramen presented an average diameter between 10.626-7.366 mm, whereas for the pterygoalar foramen it was between 5.202-3.793 mm. The presence of these formations must be considered in the therapeutic procedures that are performed in the infratemporal region, in assessing pain affecting the territory innervated by the mandibular nerve.

Foramen crotaphiticobuccinatorius

Foramen oval

Foramen ovale

Fosa infratemporal

Infratemporal fossa

Ligamento Pterigoalar

Ligamento Pterigoespinoso

Porus crotaphiticobuccinatorius

Pterygoalar ligament

Pterygospinous ligament