

Conference Abstract

DAY 1 15th September 2023 (Friday)

ORAL 1

2.00-3.30 pm

Scientific Session 10

Anatomical Relationship of Pterygospinous Bar and Foramen Ovale**Sinchana Varna; Vasudha Kulkarni**

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Background: Pterygospinous Bar (Civini's Bar) is an incomplete or complete bar of ossified ligament extending between spine of sphenoid and posterior border of lateral pterygoid plate. Foramen Ovale is a transit zone for intra and extra cranial structures. The anatomical relationship between Pterygospinous Bar and Foramen Ovale is of great surgical importance during percutaneous trigeminal rhizotomy, biopsy of cavernous sinus tumor and in the event of mandibular nerve block.

Aim: The aim of the present study was to establish the association between the pterygospinous bar and foramen ovale. The study also involved assessing the laterality of the relationship between foramen ovale and the pterygospinous bar.

Methods: We examined one hundred and thirty skulls in the department of anatomy at AIMS & RC out of which one twenty-five skulls were eligible. The anatomical relationship between Foramen Ovale and Pterygospinous bar was examined from the inferior view of the skull. The relationship was classified into four major types. Type I: Lateral, Type II: Medial, Type III: Direct and Type IV: Detached

Results: Among the one hundred and twenty-five skulls, it was observed that Type III was most common (46.2%), followed by Type IV (19.6%) and Type I (19.2%). The Type II (14.6%) was the least common. Among the skulls examined only 34.8 percentage of the skulls showed bilaterality, whereas 65.2 percentage of the skulls showed unilaterality.

Conclusion: The pterygospinous bar when incomplete can entrap the neurovascular structures and obstruct the surgical approaches to base of skull. For instance, the percutaneous approach for treating trigeminal neuroglia could fail in patients showing Type IV relationship as the pterygospinous bar is disconnected from Foramen Ovale. Hence the anatomical knowledge of such osseous bars is essential for neurosurgeons, anaesthetists, radiologists and dentists for diagnostic evaluation and surgical approaches to base of skull.

Key Words: Foramen Ovale, Pterygoid Process, Skull, Pterygospinous Bar.