Prevalence of the agenesis of frontal sinuses in dry human skulls with Metopism

Mayara Barbosa Viandelli Mundim-Picoli [1]
Lorena Batista Sandre [2]
Fernando, Fortes Picoli [3]
Livia Graziele, Rodrigues [2]
Juliano, Martins Bueno [4]
Rhonan, Ferreira Silva [5]

[1] PhD, Forensic Odontology, School of Dentistry, UniEvangelica, Brazil
[2] School of Dentistry, Federal University of Goias, Brazil
[3] School of Dentistry, Federal University of Goias; Forensic Odontology, Scientific Police, State of Goias, Brazil
[4] Radiology Department of CIRO Radiodiagnostics, State of Goias, Brazil
[5] Forensic Odontology, School of Dentistry, Federal University of Goias; Forensic Odontology, Scientific Police, State of Goias, Brazil

Corresponding author:
mayara.viandelli@gmail.com

ORAL PRESENTATION

J Forensic Odontostomatol
2017 Nov 1; Supp1(35): 20
ISSN :2219-6749

ABSTRACT

The frontal bone is an anatomical structure of the skull separated by the metopic suture (MS) in the childhood. The scientific literature indicates that MS consolidates nearly the second year of life. However, this information varies considerably, ranging from 1 to 10 years after birth. Metopism is the term used to describe a MS that persists up to the adulthood. Persistent MS are associated potentially with the agenesis of the frontal sinus. The aim of this study was to investigate the prevalence of absent frontal sinuses in dry skulls with Metopism. The present study was performed after the approval of the local Committee of Ethics in Research. The sample consisted of dry skulls (n=245), aging between 17 and 50 years old, of the Forensic Medical Institute of Goiânia, Brazil. The skulls underwent anthropological exam in the search for Metopism. Radiographic exam was performed in the skulls with Metopism to verify the presence or absence of the frontal sinus. From the 245 dry skulls, 17 presented Metopism. The length of the metopic suture in the skulls, considering the distances between nasio and bregma craniometric landmarks, ranged between 114mm and 137 mm. Radiographic exams were performed on 16 skulls (one skull was not analyzed radiographically because of extensive destruction). Only 1 skull (6.25%) had the frontal sinus absent. Besides the agenesis, the present study also found 4 (12.5%) skull with aplasia and 8 (25.0%) hyperplasia of the frontal sinus in dry skulls with Metopism. The present study found a low prevalence rate of the agenesis of frontal sinuses in dry skulls with Metopism.