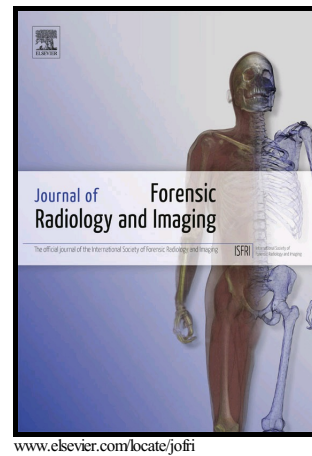


Author's Accepted Manuscript

Three-dimensional volumetric analysis of frontal sinus using medical software

Alexandre Hacl, André Luiz Ferreira Costa, Juliane Mayara Oliveira, Maria José Tucunduva, José Raul Girondi, Ana Carla Raphaelli Nahás-Scocate



PII: S2212-4780(17)30037-0
DOI: <http://dx.doi.org/10.1016/j.jofri.2017.08.004>
Reference: JOFRI261

To appear in: *Journal of Forensic Radiology and Imaging*

Received date: 16 May 2017
Revised date: 27 June 2017
Accepted date: 18 August 2017

Cite this article as: Alexandre Hacl, André Luiz Ferreira Costa, Juliane Mayara Oliveira, Maria José Tucunduva, José Raul Girondi and Ana Carla Raphaelli Nahás-Scocate, Three-dimensional volumetric analysis of frontal sinus using medical software, *Journal of Forensic Radiology and Imaging*, <http://dx.doi.org/10.1016/j.jofri.2017.08.004>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Three-dimensional volumetric analysis of frontal sinus using medical software

Alexandre Hacl¹, André Luiz Ferreira Costa¹, Juliane Mayara Oliveira², Maria José Tucunduva², José Raul Girondi², Ana Carla Raphaelli Nahás-Scocate¹

¹Department of Orthodontics and Radiology, UNICID (University of São Paulo City), São Paulo, SP/ Brazil

²School of Dentistry, UNICID (University of São Paulo City), São Paulo, SP/ Brazil

*Correspondence to: Department of Orthodontics and Radiology, UNICID, Rua Cesário Galeno 448, Bloco A. Tatuapé, São Paulo, SP- CEP 03071-000. carlanahas@yahoo.com.br

ABSTRACT

Objective:

to investigate the volume and linear measurements of the frontal sinuses by means of a three-dimensional software using helical computed tomography images.

Materials and Methods:

The samples consisted of 36 tomographic images from 22 women and 14 men aged between 18 and 86 years old. The ITK/SNAP software was used for image segmentation, analysis of volume data, and linear measurements (i.e. height, width and depth).

Results:

The mean volumes of the left and right frontal sinuses were 3.945 mm³ (SD=2.803) and 3.423 mm³ (SD=2.835). The mean linear measurements were the following: right-side axial depth of 16.1 mm (SD=7.6), left-side axial depth of 17.0 mm (SD=5.8), right-side sagittal height of 19.0 mm (SD=11.1), and left-side sagittal height of 20.5 mm (SD=9.8), with no statistically significant differences. The right-side axial width of 19.0 mm (SD=6.8) and left-side axial width of 22.4 mm (SD=9.1) in women and right-side axial width

Download English Version:

<https://daneshyari.com/en/article/4760778>

Download Persian Version:

<https://daneshyari.com/article/4760778>

[Daneshyari.com](https://daneshyari.com)