Institute of Experimental Morphology, Pathology and Anthropology with Museum
Bulgarian Anatomical Society

Acta morphologica et anthropologica, 26 (1-2)
Sofia ● 2019

# Morphological Study of Jugular Foramen in Bulgarian Adults

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## Abstract

The size and shape of jugular foramen (JF) vary widely in different populations. This study aimed to investigate the size of JF in relation to sex and laterality and to establish the incidence of a domed bony roof and complete osseous bridging of the JF in Bulgarian adults. Head computed tomography scans of 148 individuals (66 males and 82 females) were used in the study. Three-dimensional surface models of the skulls were generated from the computed tomography images. The JF measurements were calculated based on the three-dimensional coordinates of definite landmarks located on the JF margin.
The JF differed significantly between males and females in its mediolateral diameter. Bilateral differences were found only in the anteroposterior diameter in males, which was greater on the right side. The domed bony roof was more common in males. The complete osseous bridging of the JF was equally frequent in both sexes.

*Key words:* jugular foramen, CT, 3D models, sex differences, laterality.