



Anatomical variations of jugular foramen and its clinical implication: CT Study

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Abstract

Skull base is a complicated region with number of foramina providing the only portal of access to otherwise closed cranium the jugular foramen (JF) lies at the posterior end of petro occiput fissure. It's divided into 2 compartments- Pars nervosa (PN) and Pars vascularise (PV) by bony processes arising either from temporal or occipital bone. When one considers the delicate neurovascular structures that traverse their narrow confines, knowledge of the variations of these foramina become an important part of diagnostic & surgical medicine. To conduct the morphometric analysis & variations of anatomy of the Jugular foramen in north Indian population This study examined 200 Computerized tomography (CT) (110males,90females) head in axial section with no evidence of disease, that might alter foramina anatomy, from picture archiving & communication system (PACS) of Dr RMLIMS, Lucknow. The Computer-assisted measurements of foramina parameters were obtained on both right and left sides. The results were statistically analysed by using an unpaired t-test, paired t-test, ANOVA. Shape of JF was irregular in all CT scans. Only in 3 % cases, jugular foramen was not divided into Pars Nervosa and Pars vascularis. The overall mean, transverse diameter, anteroposterior diameter & distance from midsagittal plane in males were 12.70 ± 2.02 , 7.83 ± 2.02 & 21.65 ± 2.19 , and in females, measurements were 12.99 ± 2.27 , 9.46 ± 1.79 & 20.76 ± 2.10 respectively. In this study, the values of transverse diameter & anteroposterior diameter were found to be greater on the right side. Our study will be targeted to analyse dimensions of Jugular Foramen as a whole; PN and PV separately septation, if any, analysing sex variation on the go and state comparative analysis with the available data. Knowledge of these variations may help in diagnosis & management of neuralgia, nerve compression diseases & newer microsurgical techniques.

Biography

Eti Sthapak took her MBBS degree in 2002 from NSCB medical college Jabalpur and DLO in 2005 from GMC Bhopal. She has completed her MD (Anatomy) in 2013 from JNMC Sawangi, Wardha, and Maharashtra, India. Her teaching experience is 7years as Assistant Professor. At present she is working as Assistant Professor in the Department of Anatomy at Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, India. While working at the basic medical sciences, she acted as research guide to MBBS students in short term studentship project and co-guide to MD students in Anatomy. She has 17 publications in national & international journal. She received international travel grant award from Japanese Surgical Society for oral presentation in 114th Annual meeting held at Kyoto. She is a life member of Anatomical Society of India and Society of Clinical Anatomist.

