

Meeting Abstracts

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P. AMARTTAYAKONG, W. WORAPUTTAPORN, K. SRIPANIDKULCHAI, W. PANNANGRONG, AND S. RATANASUWAN, Department of Anatomy, Faculty of Medicine, Khon Kaen University, Thailand. **Does the Superior Thyroid Artery Commonly Arise From the External Carotid Artery?**

Purpose: Each surgical technique of superior thyroid artery encounters inherent risks and complications from bleeding to coma and mortality. Many classical anatomy textbooks state that this vessel commonly arises from external carotid artery. This study aimed to explore the variations in patterns of origin of superior thyroid artery and origin site relating to the carotid bifurcation in a Thai population.

Methods: The origin of superior thyroid artery was dissected on 110 carotids from 55 embalmed cadavers (32 males and 23 females) of North-eastern Thai population aged between 29 and 92 years. Patterns of origin of the vessel were determined on both sides. The distances from the origins to the carotid bifurcation were measured.

Results: The superior thyroid arteries originated from external carotid arteries in only 17.3% whereas those from either trunks or bifurcation of common carotid arteries were obviously high (80.9%). Minor origin was thyrolingual trunk (1.8%). The points of origins emerging above, below and the same level of carotid bifurcation were 19.1, 48.2, and 32.7%. The distance of origin sites above and below carotid bifurcation level were 6.0 ± 2.0 and 7.0 ± 4.2 mm.

Conclusions: Most parent vessels of the superior thyroid arteries are common carotid arteries. In uncontrollable bleeding of the upper pole of thyroid, ligation of external carotid artery is consequently insufficient to stop bleeding. Anatomic variation of the origin of superior thyroid artery should be concerned during thyroid surgery.

H. ANSCOMB, R HARRIS, K DOMETT, AND A. TROLLOPE, James Cook university, Queensland, Australia. **Prepared to Study: Resources Designed to Aid Student Studies in Human Cadaveric Anatomy**

Purpose: The use of human cadaveric specimens for effective teaching of clinical human anatomy is well documented. However, the study of cadaveric human anatomy typically occurs early in the undergraduate curricula for most health professional degree programs and can be an intimidating method of study.

Methods: This article describes preliminary studies into the design and development of a set of resources aimed to assist students in their preparation for, and study with, human cadaveric materials. Students in first year rehabilitation sciences ($n = 287$) and speech pathology ($n = 43$) in 2015 were provided with cadaveric-based resources prior to cadaveric practical classes. Student satisfaction, experience and competencies in anatomy were then assessed and compared with 2014 data from students who did not receive preparatory resources.

Results: Academic results from two student cohorts (Occupational Therapy and Speech Pathology) increased significantly from 2014, and particularly in association with practical examination components (spot test results). Student feedback and focus group data showed that students felt better equipped and supported through the cadaveric study classes and believed themselves better prepared for self-study.

Conclusions: The teaching and learning strategies applied here have led to demonstrated improvement in the study of anatomy and an enhanced student learning experience.

M. BADSHAH,¹ R. SOAMES,¹ A. BALOCH,² J. HASNAIN,³ AND M. KHAN,⁴ ¹Centre for Anatomy and Human Identification, University of Dundee, United Kingdom, ²Department of Basic Medical Sciences, Unayzah College of Medicine, Al Qassim University, Unayzah, Kingdom of Saudi Arabia, ³Bridge Consultants Foundation, Karachi, Pakistan, ⁴Department of Biochemistry, Khyber Medical University, Peshawar, Pakistan. **Morphometry of Frontal Notch and Frontal Foramen in Northern Pakistan**

Purpose: Anesthetizing the frontal nerve during periorbital/ facial surgery requires precise knowledge of the location and variations of the frontal notch (FN) and frontal foramen (FF). Such morphometric data was investigated in a Pakistani population.

Methods: Human skulls ($n = 126$) of unknown age and sex were examined from which the location, size, shape and position of the FN and FF with respect to maxillary teeth were determined. Distances measured were: FF length and width, FF and FN center to nasal midline (NM), angulus oculi medialis (AOM), supraorbital notch (SON), and supraorbital foramen (SOF).

Results: FN were present in 47.6% (right) and 56.3% (left) of skulls mainly located above the canines (31.7%, 37.3%), incisors (0.79%, 4.76%), first premolar (1.58%, 2.38%), between incisor and canine (1.58%, 0.79%). FF in 32.5% (right) and 25.3% (left) also above the canines (16.6%, 15.07%): FF were mainly round (18.25%, 12.69%). Means \pm SD for right and left sides were: FN-NM, 18.33 ± 2.98 & 17.97 ± 2.55 mm; FN-AOM, 7.78 ± 2.9 and 7.05 ± 2.76 mm; FN-SON, 7.65 ± 2.12 and 8.08 ± 2.81 mm; FN-SOF, 10.84 ± 3.40 and 11.82 ± 4.09 mm; FF-NM, 18.11 ± 4.01 and 17.67 ± 3.32 mm; FF-AOM, 12.31 ± 3.02 and 12.29 ± 3.48 mm; FF-SON, 10.37 ± 3.86 and 10.23 ± 2.44 ; and FF-SOF, 12.96 ± 6.30 and 14.29 ± 5.60 mm. Accessory FF were observed on the right (3.96%) and left (5.55%).

Conclusions: No differences in right and left FF or FN were observed. Accessory FF were observed on both sides.

M. BADSHAH,¹ R. SOAMES,¹ F. BALOCH,² J. KHAN,³ J. HASNAIN,⁴ AND M.J. KHAN,⁵ ¹Centre for Anatomy and Human Identification, University of Dundee, United Kingdom, ²Department of Basic Medical Sciences, Unayzah College of Medicine, Al Qassim University, Unayzah, Kingdom of Saudi Arabia, ³Department of Anatomy, Peshawar Medical College, Peshawar, Pakistan, ⁴Bridge Consultants Foundation, Karachi, Pakistan, ⁵Department of Biochemistry, Khyber Medical University, Peshawar, Pakistan. **Morphometry of the Supraorbital Region in a Pakistani Population**

Purpose: Anesthetizing the supraorbital nerve during periorbital and facial surgery requires precise knowledge of location and variations of the supraorbital notch (SON) and supraorbital foramen (SOF).

Methods: The location, size, shape and position of SON and SOF with respect to maxillary teeth were recorded in 126 skulls of unknown age and sex. SOF length-width, transverse diameter (SON-TD), distance from the SON and SOF center to nasal midline (NM), angulus