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A study of coronary arteries by coronary angiography

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Aims and objectives: To study the normal and variant anatomy of coronary arteries in patients undergoing coronary angiography for various reasons.

Material and methods: 50 coronary angiograms were taken from the database of cardiac catheterisation laboratory of department of cardiology and studied.

Results: Right coronary artery (RCA) in all 50 samples (100%) originated from anterior aortic sinus while left coronary artery (LCA) originated from left posterior aortic sinus in all 50 samples (100%). SA nodal artery (SANA) originated from RCA in 37 cases (74%) and from circumflex artery (LCXA) in 13 remaining cases (26%). AV nodal artery (AVNA) originated from RCA in 39 cases (78%) and from LCXA in 11 cases (22%). LCA bifurcated in 40 cases (80%) and trifurcated where additional median artery was found in 10 cases (20%). Posterior interventricular artery was arising from RCA in 39 cases (78%), from LCXA in 10 cases (10%) and from both in one case (02%). Thus right coronary dominance was noted in 78%, left dominance in 20% and Co-dominance in 02% of cases.

Conclusion: Having a sound knowledge about the normal and variant anatomy of coronary arteries is quite important for cardio thoracic surgeons and interventional cardiologists for performing various diagnostic and therapeutic procedures.

Conflicts of interest

The authors have none to declare.

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A CT study to find out prevalence of frontal sinus aplasia

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Aims and objectives: The paranasal sinuses are subject to a large variety of lesions. Congenital malformations and normal anatomic variations are important in this region. The aim was to find out prevalence of frontal sinus aplasia in normal healthy population and to discuss its clinical implication.

Material and methods: A cross-sectional analysis was performed on CT scans of head and neck region of patients visiting Radiodiagnosis department of Era's Lucknow Medical College and Hospital, Lucknow.

Results: 6.6% of the population was observed to have frontal sinus aplasia.

Conclusion: It is important for surgeons to be aware of variations in sinuses that may pre-dispose patients to increased risk of intra-operative complications. These and other related implications shall be discussed during the deliberations.

Conflicts of interest

The authors have none to declare.

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Meta-analysis of pneumatisation of temporal bone

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Aims and objectives: The present results are based on the meta-analysis of various classifications of pneumatisation of temporal bone and its air cells. The air cells are classified based on the region of temporal bone in a radiograph or based on the interpretation of a radiologist or otolaryngologist with the help of different reference structures.

Material and methods: The meta-analysis was done by reviewing full text articles available on Pubmed, Science direct, Scopus, and Medline.

Results: The regional classification classically used is based on the work done by Allam (1969) where the temporal bone is divided into middle ear, squamomastoid (mastoid), perilabyrinthine, petrous apex and accessory. The cells are named accordingly and they are further classified into various grades by the degree of pneumatisation and density of cells present in the respective regions. The squamomastoid region has highest density of air cells among the five regions, which has been a consistent finding in various studies undertaken.

Most recent work which has been cited in various articles, done by Han et al (2007) where the pneumatisation is classified based on the visualization of various reference structures notably, the sigmoid sinus, the labyrinth, the internal carotid artery. The common structure to all these landmarks is the visualization of "ice-cream cone" appearance of malleo-incudal complex. The cells here are noted according to their relationship with the above mentioned structures.

Conclusion: The lack of consensus among surgeons and otolaryngologists regarding the classification of the pneumatisation of temporal bone may be a cause of failure in a few otologic surgeries such as 1° mastoidectomies, etc and postoperative care of skull base surgeries. Therefore we propose a study to reclassify the pneumatisation based on both CT and microdissection, with a detailed anatomical knowledge so as to reduce the ambiguity and also to give a better perspective to otologists, neurosurgeons, oral maxillofacial surgeons etc for a good out come and post-operative care.

Conflicts of interest

The authors have none to declare.

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