

Conflicts of interest

The authors have none to declare.

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55

Acromial morphology in relation with impingement syndrome

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Aims and objectives: The morphology of acromian is important to understand impingement syndrome. The acromioplasty is required in cases of decreased subacromian space. To increase subacromian space and improve rotator cuff tendonopathy surgeons need to do acromioplasty. The aim of study is to do morphometry of acromian and correlate it with other study.

Material and methods: The present study was conducted on 61 adult scapulae of unknown age and sex. The length and breadth of acromian process and the distance from the tip of the acromian process to supraglenoid tubercle and coracoid were measured with the help of a digital caliper.

Results: Shape of acromian from dorsal view was 55.73% quadrangular, 31.14% triangular and 13.11% tubular. We found quadrangular was most frequent type. Length of acromian was 41.23 mm and breadth of acromian process was 22.12 mm.

Conclusion: Acromioplasty is needed in some impingement syndromes and in some cases, only coracoacromial ligament excision without acromioplasty improves the symptom. Acromian morphology and morphometry is pivotal for surgeons and interventionists to do the surgery for rotator cuff tendonopathy.

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56

Assessment of 2nd and 4th digit length ratio as an anatomical marker for predicting the risk of developing polycystic ovarian syndrome

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Aims and objectives: Human finger lengths demonstrate constant ratios amongst themselves throughout life. The ratio between 2nd and 4th digit length (2D:4D ratio) is found to be indicative of intrauterine effect of testosterone and oestrogen upon growing foetus. 2D:4D is usually <1 in male and ≥1 in females. With this anatomical expression of sex-hormonal predominance during intrauterine life, we tried to find any possible association with developing polycystic ovarian syndrome (PCOS) in adulthood.

Material and methods: 251 women of reproductive age group (15–45 yrs) attending the G&O OPD of I.P.G.M.E.&R., Kolkata & R.G.K.M.C., Kolkata, who had fulfilled the Rotterdam criteria (2003), were taken as cases. Age matched 285 healthy female were examined for control data. Finger lengths of 2nd and 4th digit were measured using digital vernier caliper.

Results: After obtaining a statistically significant difference ($P < 0.05$) between 2D:4D ratio of cases and controls, a cut off value of 0.9928 for left hand with sensitivity 68.92 and specificity 72.98 and for right hand a cut off value of 0.9846 with sensitivity 66.53 and specificity 83.51 were determined, by interpreting 2D:4D of cases and controls using the ROC curve analysis. Thus we can say that those with a lower ratio than the determined cut off values have high probability of developing PCOS in adult life.

Conclusion: This anatomical expression can be used as a tool for early prediction of PCOS and hence substantiates the need for suitable lifestyle modification to counteract this syndrome at its nascent stage.

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57

Termination variants of left coronary artery in north coastal Andhra Pradesh

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Aims and objectives: Coronary artery disease is a major cause of mortality in developed and developing countries. Anatomically coronary arteries show variations in branching pattern. A study of normal and variant pattern of termination of left coronary artery is of utmost importance in various interventional diagnostic and curative procedures. The perfusion dynamics of left coronary artery are important. With this aim the left coronary artery termination was observed in 50 cadaver hearts of north coastal Andhra Pradesh.

Material and methods: 50 hearts of cadavers of Anatomy department of MIMS, Nellimarla, Andhra Pradesh were collected over a period of 5 years. Left coronary artery origin course and termination was dissected.

Results: Bifurcation of left coronary artery was observed in 43 specimens where as trifurcation was observed in 6 specimens and quadrifurcation was found in 1 specimen. The results of the study were compared with others.

Conclusion: Variations in the left coronary artery is important as it is baring an interpretation of its effects in occlusion. It also affects the risk factors in atherosclerotic patients.

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