entry of vascular pedicle to the semitendinosus muscle from its origin was ranging between 44 mm and 265 mm.

Conclusions: The morphometric data obtained in the present study is important to the vascular and plastic surgeons. It has implications during the harvesting of the grafts and pedicle flaps. The data is also essential to the anthropologists, orthopedicians and clinical anatomists.

Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.028

22

Measurement of height from ulnar length: A cross-sectional study among the staff of NEIGRIHMS, Meghalaya

Sarma Amitav*, G.C. Das, A.D. Momin

NEIGRIHMS, Shillong, Meghalaya, India

Aim of the study: To observe the correlation between the height and length of ulna.

Materials and methods: 164 (male: 118 and female: 46) healthy subjects of age group 25–50 years were studied. Their height was measured from crown to heel with standard height measuring instrument in Frankfurt's plane with bare foot and their ulna length was measured with wide spread caliper using standard procedure.

Results: The regression analysis was carried out to find the strength of relationship of ulna length with body height and the following equation was formulated: $y = mx + c$, where y = height of the subjects, x = length of ulna, c = intercept/constant, m = regression coefficient. In our study following values were obtained. For male subjects: $m = 5.495$ and $c = 26.71$; so equation becomes $y = 5.495x + 26.71$ and $r^2 = 0.913$. For female subjects: $m = 5.641$ and $c = 22.06$; so equation becomes $y = 5.641x + 22.06$ and $r^2 = 0.836$.

From the above we suggest that there is strong positive correlation between height and length of ulna among both male and female study subjects. All the findings will be discussed in details during presentation.

Conclusion: By using the length of ulna we can calculate the height of an individual which will be beneficial for anatomist, clinicians and anthropometry studies.

Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.029

23

Reconstruction of femoral length from markers of its proximal end

Anil Kumar Dwivedi*, R. Bhatnagar

Veer Chandra Singh Garhwali Government Medical Sciences & Research Institute, Srinagar, Uttarakhand, India

Introduction: Stature is one of the most important parameter in the identification of an individual, and it can be calculated from measurements of long bones specially femur and tibia. Bony markers such as head and neck of femur can be of use in determining the femoral length and thereby stature of an individual. The aim of this study is to derive regression equation for estimation of length of femur by measuring proximal segments.

Materials and methods: This study consists of 280 femora (136 of right side and 144 of left side). The maximum length of femur, head vertical and transverse diameter, head circumference, neck vertical and transverse diameters were measured with the help of osteometric board and vernier caliper.

Results: The data were statistically analyzed for correlation coefficient and regression. The mean of maximum length of femur was 412.56 + 30.34 mm (right femur – 414.96 ± 30.57 mm, left femur – 410.29 ± 30.05 mm). The length of femur significantly correlates with the other measurements of proximal end ($p < .01$). Linear regression equations of length of femur against various proximal end measurements have been derived.

Conclusion: The positive correlation between maximum femoral length and parameters of its proximal end, and regression equation derived in this study will be useful in estimation of the total length of the femur. Hence, this study will be helpful to anthropologists, archaeologists and forensic investigators.

Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.030

24

Bilateral linguofacial trunk in a cadaver: A case report

Arpan Haldar*, Sudipa Biswas, Suranjali Sharma, Dharam Singh Rathia, Soumya Chakraborty

ESI Post Graduate Medical College and Hospital, Kolkata, India

Background: External carotid artery (ECA) extends from level of upper border of lamina of thyroid cartilage to a point behind the neck of mandible and parotid gland providing eight branches: superficial temporal, maxillary, ascending pharyngeal, superior thyroid, lingual, facial, occipital and posterior auricular artery. Cases of common thyro-lingual, linguo-facial and thyro-linguo-facial were reported of which linguo-facial trunk is most common.

Materials and methods: During routine dissection in Department of Anatomy, ESI Medical College, Kolkata, Linguo-facial trunk originated from ECA on both sides above greater cornu of hyoid bone in a 60-year-old cadaver. This variation was coloured and photographed.

Observations: Lingual and facial arteries originated from front of ECA as common linguo-facial trunk on both sides and coursed upward towards the mandible, dividing into facial and lingual arteries at the level of laryngeal prominence. Lingual artery crossed the internal laryngeal, passed underneath the hypoglossal nerve and anterior belly of digastric muscle to enter digastric triangle. Facial artery passed upwards and forwards reaching posterior part of submandibular gland. Other branches of ECA were normal.

Discussion: Knowledge of linguo-facial trunk is essential for radiologist to interpret carotid system imaging for superselective intra-arterial catherization and placement of cross clamps on carotid arteries in carotid end-arterectomy and in Facial Artery Musculo Mucosa (FAMM) flap for reconstruction of oronasal fistulas and closure of soft tissue defects in mandibular vestibule. Variations pose a danger during thyroidectomy, laryngectomy, carotidendoplasty for treatment of carotid stenosis or extracranial–intracranial arterial bypass for treatment in occlusive cerebrovascular disease, skull base tumours or aneurysms.

Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.031

25

Morphometric study of suprascapular notch in Indian dry scapulae with specific reference to the incidence of completely ossified superior transverse scapular ligament

Madala Venkateswara Rao*, Lattupalli Hema

Narayana Medical College, Nellore, Andhra Pradesh, India

Background: The suprascapular notch, a depression on the lateral part of the superior border of the scapula, medial to the coracoid process, is bridged by the superior transverse scapular ligament, which is sometimes ossified and the foramen, which is thus completed, transmits the suprascapular nerve to the supraspinatus fossa. Variations in the morphology of suprascapular notch have been identified as one of the causes of suprascapular nerve entrapment. Rengachary et al. classified this notch into six types, based on its shape.

Aim of study: To study morphological variations of suprascapular notch in Indian dry scapulae and to analyze the incidence of completely ossified superior transverse scapular ligament with other ethnic populations which have been cited earlier.

Materials and methods: A total of 100 human dry scapulae which were obtained from the Department of Anatomy, Narayana Medical College, Nellore. The type of suprascapular notch was noted and it was recorded as per the description given by Rengachary et al. The results of the present study were compared with the results of previous authors in different populations.

Results: In our study, out of 100 scapulae, 40 (10%), were identified to have completely ossified superior transverse scapular ligaments. The frequencies of various types of suprascapular notches were: Type I – 19%, Type II – 15%, Type III – 30%, Type IV – 13%, Type V – 20%, Type VI – 10%.

Conclusion: The growing importance of such variations of suprascapular notch are useful for the surgeons, orthopedicians and anatomists to arrive at the correct diagnosis and do the necessary treatment.

Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.032

26

Expression of neuropeptide Y in dorsal root ganglia following hind paw incision in rats

Anshu Bahl*, Shivani Gupta, S.B. Ray, Saroj Kaler

AIIMS, New Delhi, India

Background: Neuropeptide Y (NPY) is widely distributed in the mammalian nervous system. NPY has established role in circadian rhythm, blood pressure, appetite, obesity and memory. The aim was to investigate NPY expression in dorsal root ganglion during pain. The hind paw incision model in rats mimics postoperative pain in humans.

Methods: Sprague-Dawley rats ($n = 24$) were randomly divided into 2 groups – control ($n = 6$) and incision ($n = 18$) groups. Behavioural test for nociception was done under basal condition and after surgical incision in right hindpaw at different time periods (day 1, 3 and 5) using Hargreaves test. The procedure of incision has been previously reported. The rats were perfused with 4% paraformaldehyde followed by removal of dorsal root ganglia at L4 level. The tissue was processed for immunohistochemical localisation for NPY.

Results: Postincisional groups (day 1, day 3 and day 5) exhibited significant decrease of paw withdrawal latency in comparison to control rats. The NPY expression was mainly noted in the small-sized dorsal root ganglion neurons. Some neurons showed intense staining particularly, on day 5.

Conclusion: Decreased latency indicated nociception, particularly on day 1. Compared to control, expression of NPY was decreased on day 1. This could be correlated with increased axoplasmic flow towards the spinal cord. On day 5, NPY expression was highest in DRG. This could be due to decreased transfer towards the spinal cord from the site of synthesis.

Conflicts of interest

The authors have none to declare.

http://dx.doi.org/10.1016/j.jasi.2017.08.033

27

Effect of metformin on testicular histology of adult male offsprings

Priya J. Martis*, Sneha Guruprasard, Guruprasad Kalthur, Anthony Sylvan Dsouza

Kasturba Medical College, Manipal University, Manipal, India

Introduction: Metformin is an oral anti-diabetic drug, primarily used for treating polycystic ovary syndrome (PCOS) which is a very common cause of female infertility. In addition, it is also used in treatment of type 2 diabetes mellitus. As it benefits by improving insulin resistance of tissues it is also widely used in gestational diabetes. Treatment is given throughout the pregnancy to reduce the complications such as pregnancy loss. Metformin administered during pregnancy crosses the placental barrier and also reduces the sex hormone binding globulin (SHBG) level and alters the Leydig cell functions which ultimately affect the testicular development in male offspring.

Aim: To study the histological changes occurring in the male gonads following maternal exposure to metformin.

Materials and methods: The adult Swiss albino mice were administered with 50, 100 and 200 mg/kg body weight (intraperitoneally), every day for 4 weeks. After the completion of the treatment, the female mice were mated with healthy fertile males and the litters born were monitored till they attained 8 weeks. Testes were collected and processed for histological study by taking 5 μm thick sections and stained with Haematoxylin & Eosin.

Results: A significant reduction in the number of spermatogonial cells, reduced diameter of seminiferous tubules and increased number of tubules with incomplete spermatogenesis was observed in offspring born to females treated with 200 mg/kg metformin. The data also supports the epididymal sperm parameters.

Conclusion: The result indicates that administration of metformin at higher doses can have detrimental effect on malegonadogenesis.