

the muscle belly occupies a length of 5–10 cm. It is believed that the plantaris muscle was an accessory muscle and only vestigial in humans, and that it might be absent in 7–20% of individuals.

Aim and Objective: To study absence of plantaris tendon in lower limbs.

Material and Method: 32 legs from 16 adult cadavers were dissected, of which 16 were right legs and 16 were left legs. The apparent age of the cadavers was between 30 and 68 years from 1st July 2012 to 30th June 2014. The observations were documented by means of digital photographs.

Result and Observation: In the present study, plantaris was absent in 4 limbs (12.5%) in 2 cadavers (2 on right and 2 on left) dissected.

Conclusion: The typical universal occurrence of absence of plantaris tendon in lower limbs tallies with our results.

59. Study of variations of suprascapular notch

Sushil Kumar Mandal, D. Poddar Ray, P. Mukherjee

R. G. Kar Medical College, Kolkata, India

Abstract: Hundred dried scapulae are examined for variations of suprascapular notch in R.G. Kar Medical College Kolkata. Meticulous naked eye examinations reveal various shapes including “V”-, “U”-, “J”-shaped notches. Very shallow notch has been found in six scapulae (Rt-4/Lt-2). Total number of scapulae having “U”-shaped suprascapular notch are 41 (Rt-22/Lt-19), scapulae having “V”-shaped notch are 19 (Rt-10/Lt-9) and scapulae having “J”-shaped suprascapular notch are 32 (Rt-22/Lt-10). Absence of suprascapular notch has been found in 2(Rt) scapulae. Very shallow suprascapular notch is alarming and may predispose to entrapment of suprascapular nerve causing wasting of supraspinatus and infraspinatus muscle. Anatomical knowledge of such variations should be kept in mind by radiologist, orthopaedic and neuro-surgeons, as these variations may alter the technique of surgery.

60. Variations in the branching pattern of external carotid artery in cadavers

Anjalee Govindrao Ovhal, L. Rajgopal, D.D. Sonarkhan

Seth G.S. Medical College, Parel, Mumbai, India

Introduction: The External Carotid Artery (ECA) begins at the bifurcation of the common carotid artery lateral to the upper border of the thyroid cartilage, level with the intervertebral disc between the third and fourth cervical vertebrae. The external carotid artery has eight named branches distributed to the head and neck. The superior thyroid, lingual and facial arteries arise from its anterior surface, the occipital and posterior auricular arteries arise from its posterior surface and the ascending pharyngeal artery arises from its medial surface. The maxillary and superficial temporal arteries are its terminal branches within the parotid gland.

Objective: To study and note down variations in the branching pattern of ECA.

Methods: In this study, 60 cadavers (52 male and 8 female) embalmed with 10% formalin obtained from the Department of Anatomy were used, and thus 120 neck-halves were dissected and ECA and its branches were studied.

Results: Some branches of ECA were found to be arising as common trunks such as thyrolingual trunk, linguofacial trunk, thyrolinguofacial trunk and occipitoauricular trunk. Accessory branches of ECA such as branches to the parotid gland and submandibular gland were also found.

Conclusion: The variations in the branching pattern of ECA should be kept in the mind during surgical procedures in the neck region, such as emergency cricothyroidotomy, radical neck dissection, catheterization, etc.

61. Morphology of rotator cuff tear: An anatomical perspective

Ajay Nene

G S L Medical College, Rajahmundry AP, India

Objective: To evaluate incidence of rotator cuff ruptures and to compare the findings of the present study with previous studies. To establish morphological parameters of impending rotator cuff rupture.

Methods: 100 embalmed cadaveric shoulders (50 right and 50 left) aged between 34 and 69 were dissected to study the morphology of rotator cuff. The parameters observed were Total muscle length, Extramuscular tendon length, Functional tendon length and Tear size of Supraspinatus (SSP), Infraspinatus (ISP), Subscapularis (SSC) and Teres Minor (TM). The parameters were tabulated and compared between sides and torn with intact tendons.

Results: The incidence of rotator cuff tear is mostly seen with rupture of SSP tendon (23%) and also with SSC tendon (3%). Tear size ranged from 0.2 to 1.2 mm. No tear was found in ISP and TM. Right side tears in both SSP and SSC were found more than left. In all the torn tendons, the myotendinous junction had shifted away from insertion and the observation was statistically significant.

Conclusion: The incidence of rotator cuff tears increases with age. We did not see any complete thickness ruptures of the cuff. Supraspinatus tendon rupture was always observed with torn rotator cuff. Increase in functional tendon length appears to be consistent with cuff tears and should be regarded as a forerunner of cuff tear in intact rotator cuff. Surgical repair can prevent cuff tear in such cases.

62. Fusion of manubriosternal joint: Role in estimation of age

M. Nath, J.A. Champi

G. S. L. Medical College, Rajahmundry, Andhra Pradesh, India

Introduction: Estimation of age of an individual from unidentified skeletal remains is a crucial step in osteological analysis. For this reason, developing ageing criteria from various

skeletal elements has been a primary research focus in skeletal biology.

Objective: The present work is an effort to study the sternum for estimation of age of an individual based on fusion of the manubriosternal joint.

Materials & method: The sterna were obtained from the fifty-one cadavers by careful dissection. The age and sex of the deceased were obtained from the nearest relatives and police and were verified by the necessary documents. The collected specimens were cleaned and dried properly. For the estimation of age, the sterna were examined for the presence or absence of fusion at Manubriosternal joint.

Result: Partial fusion of manubriosternal joint was first seen in the age group of 51 to 55 years in male and 41 to 45 years in female, while the complete fusion was seen first in age group of 51 to 55 years in male and in 61 years onward in females. But even in these age groups and further higher age groups, manubriosternal joint was still in the stage of partial fusion and in some cases, they were not fused at all with the body of sternum.

Conclusion: Hence, correct estimation of age based on fusion of manubriosternal joint alone is not a much reliable criterion.

63. Acetabulum of the hip bone: A morphometric study in south coastal region

Hema Lattupalli

Narayana Medical College, Chinthareddypalem, Nellore, AP, India

Introduction: Acetabulum is a cup-shaped depression on the outer surface of the constricted central part of the hip bone, where three components meet and subsequently fuse. The acetabulum receives the head of the femur and forms poly axial hip joint.

Objective:

To study the morphometric parameters of the acetabulum of hip bone.

To understand the mechanics of the joint so as to plan for suitable prosthesis.

Methods: A total number of 131 dried hip bones from the Department of Anatomy, Narayana Medical College, Nellore, of unknown age and sex were taken for the study. All measurements were manually performed directly by placing the digital vernier callipers on the acetabulum.

The following parameters were observed:

1. *Diameter of the acetabulum:* It is the maximum transverse distance between the acetabular cavity. It was measured using digital vernier callipers and readings were noted in cms.
2. *Depth of the acetabulum:* It is the maximum vertical distance from the brim of the acetabulum to the deepest point in the acetabular cavity. A thin metallic strip was placed across the brim of the acetabular cavity and then the distance from the strip to deepest point in the acetabulum was measured using vernier callipers. The readings were noted in cm.
3. *Capacity of the acetabulum:* It is the volume of the cavity of the acetabulum. The acetabular cavity was filled with

plasticine up to its brims. The plasticine was transferred to a water-filled graduated measuring cylinder. The volume of the water displaced gave the capacity of acetabular cavity.

4. *Shape of the anterior ridge of the acetabulum:* the shape of the anterior ridge of the acetabulum was assessed and classified as curved, irregular, angular and straight.

Results:

1. Average maximum transverse diameter: is 3.78cms on the right side and 5.13 cms on the left side.
2. Average depth of the acetabular cavity: is 2.70 cm on right side and 3.05 cm on the left side.
3. Total range for the capacity was 20–55 ml.
4. Curved shape anterior rim of acetabulum was seen in 50 (38%) cases, straight shape in 38 (29%) cases, irregular shape in 28 (21.3%) cases and angular in 15 (11.4%) cases.

Conclusion: The present study is of great use to the orthopaedicians, radiologists and prosthetists for the better understanding of pathophysiology of hip region. This will help them to design an efficient and functional prosthesis to prevent its loosening, dislocation and iliopsoas impingements.

64. A cadaveric study on accessory spleen

Ahmed Abdul Alim, Talukdar Kunjalal, Deka Rup Sekhar.

Gauhati Medical College, Guwahati, Assam, India

Objective: To study about the accessory spleen aiming to use this knowledge in surgery and imaging techniques.

Materials and Methods: 31 human spleens were studied in the Department of Anatomy, Gauhati Medical College, Guwahati. The spleens were collected from the Dept. of FSM and Dept. of Anatomy Gauhati Medical College, Guwahati after fulfilling all medicolegal formalities. Each spleen was dissected, documented and photographed properly.

Results: In the present study accessory spleens were present in 7 (22.58%) specimens and absent in 24(74.42%) specimens out of total 31 spleens. There is one accessory spleen present in 9.68%, two in 6.45%, three in 3.326% and one (3.326%) spleen contains up to 8 accessory spleens.

Conclusion: The findings of this study are useful for surgeons especially in splenectomy and postoperative sequel. This will also give reliable information to the anatomists for learning and also for teaching splenic anatomy. The details of the study will be discussed at the time of presentation.

65. Study of the cervical segment of internal carotid artery

D. Nirmala

Department of Anatomy, J. J. M. Medical College, Davangere, India

Aims & Objectives: Internal Carotid Artery supplies the large area of cerebral hemisphere. It arises from Common Carotid