

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

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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

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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

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

Artery at the level of intervertebral disc between C3 & C4 in the cervical region, posterolateral to External Carotid Artery, another terminal branch of the Common Carotid Artery. It ascends upwards vertically in the neck without giving any branches to enter the carotid canal at the base of the skull. Sometimes the artery shows a curve or a kink in its course. The aim of the study was to measure the length in the neck region and to identify any variation in the course.

Materials & Methods: The study was done on 54 bisected head and neck specimen of adult human cadavers. The artery was dissected from its origin till it entered the carotid canal and its course was studied.

Results: The mean length of Internal Carotid Artery was on right side – 8.4 cm, on the left side – 8.8 cm. Data were analyzed for male and female specimen and for right and left side separately. In about 6 specimens, the artery showed a curved course, which is a variant from normal course, & one specimen showed complete loop formation.

Conclusion: The Internal Carotid Artery is related to various structures in its course & forms an important source of blood supply to brain. Any variation in its course influences the blood flow to the brain. Hence, its knowledge is important for the clinicians.

66. Morphometric study of internal laryngeal nerve

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Objectives: To study the morphometry of internal laryngeal nerve (ILN) which is a branch of superior laryngeal nerve (SLN) and its location from important anatomical landmarks.

Materials and Methods: This study was carried out on the 15 cadavers in Dept. of Anatomy, KMC, Manipal University, Manipal. The parameters measured are length of SLN and ILN, level of origin of ILN, distance from level of origin of ILN to the anterior surface of corresponding intervertebral disc, distance between origin of ILN and bifurcation of common carotid artery (CCA), distance between the point of piercing of thyrohyoid membrane (TM) by ILN and CCA bifurcation.

Results: The mean and standard deviation of the length of SLN was 20.25 ± 7.3 mm, length of ILN was 38.50 ± 5.29 mm, distance from level of origin of ILN to the outer surface of corresponding intervertebral disc was 30.50 ± 3.56 mm, distance between origin of ILN and bifurcation of CCA was 28.20 ± 5.65 mm, distance between the point of piercing of TM by ILN and CCA was 28.90 ± 4.58 mm and the level of origin of ILN was C2-C3 in 95% cases and C1-C2 in 5% cases.

Conclusion: The study reveals that ILN descends anteromedially and pierces thyrohyoid membrane. Hence, ILN may get injured during cervical spine and thyroid surgery or injury to anteromedial aspect of cervical spine. Thus, this study helps the surgeons who intervene in this region.

67. Surgical anatomy of common peroneal nerve

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Objectives: To study the morphometry of common peroneal nerve (CPN), which is derived from the dorsal branches of the ventral rami of fourth and fifth lumbar and the first and second sacral nerves.

Materials and Methods: The study was done using 20 cadavers in the Dept. of Anatomy, KMC, Manipal. The parameters measured in this study are the level of origin of CPN (in the thigh), distance of CPN from iliac crest, greater trochanter and ischial tuberosity, length of CPN (origin to bifurcation), distance from bifurcation of CPN to biceps femoris tendon and lateral tibial condyle.

Results: The mean and standard deviation of the distance of origin of CPN from iliac crest was 42.36 ± 5.92 cm, greater trochanter was 28.62 ± 7.20 cm and ischial tuberosity was 26.14 ± 6.66 cm, length of CPN was 18.45 ± 8.79 cm, distance from bifurcation of CPN to biceps femoris tendon was 2.48 ± 0.37 cm and lateral tibial condyle was 5.23 ± 0.68 cm and the level of origin of CPN was upper 1/3 in 10% cases, middle 1/3 in 25% cases and lower 1/3 in 55% cases.

Conclusion: This study defines the anatomic course of the CPN and helps the surgeons to avoid CPN injury in arthroscopic techniques (arthroscopic lateral meniscus repair).

68. Superficial branch of radial nerve: A morphometric study

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Objective: Radial nerve (RN) is the largest branch of the brachial plexus. It divides anterior to the lateral epicondyle (LE) of humerus, into a deep branch and a superficial branch (SBRN) which supplies lateral 3 1/2 or 2 1/2 of the dorsum of hand.

Materials & Methods: The study was done in 24 upper limbs (13 left, 11 right) obtained from Department of Anatomy, Kasturba Medical College. Different parameters studied were: division of RN with reference to LE and distribution of SBRN. Distances were measured from radial styloid process (RSP) as the reference point of SBRN becoming subcutaneous, branching of SBRN, cephalic vein crossing SBRN. Communication with other cutaneous nerves was looked for.

Result: In 13 specimens RN bifurcated at the level of LE, in 8 below the LE and in 3 above LE. Mean Distance from RSP of where SBRN became subcutaneous was 12.29 cm, SD(1.53), range:10-14.5 cm, of origin of 1st branch of SBRN was 6.62 cm, SD(2.43);range:2-10 cm and of Cephalic vein crossing SBRN was 6.31 cm;SD(2.16) range:3.5-10 cm. SBRN was supplying