

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 ½ or 2 ½ 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

lateral 2 ½ fingers in 100% specimens. Communication with other nerves was not seen.

Conclusion: Because of variable anatomy of the nerve it is difficult to define a safe zone for surgical incisions on the dorsum of wrist. SBRN can be injured during procedures like Orthopedic percutaneous wire fixation, cephalic vein cannulation, arthroscopic surgery of wrist joint etc.

69. Morphometric study of iliolumbar artery [ILA] and its relation to obturator nerve [ON]

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Objectives: ILA is a branch of the posterior division of internal iliac artery [IIA] and it extends upwards and laterally in front of the sacroiliac joint and terminates into iliac and lumbar branches. The present study attempts to reveal the variation of the ILA and its relation to surgically important landmarks.

Materials and Methods: The pelvic regions of 15 embalmed adult cadavers were dissected bilaterally in the dept. of anatomy KMC Manipal and the following parameters are recorded. Length of ILA up to bifurcation point, Distance between ILA and midpoint of upper border of sacral promontory [S₁] and bifurcation point of common iliac artery [CIA], relation of ILA to ON.

Results: The ILA usually arises from the posterior division of the IIA and also from the trunk of the IIA. The distance between the origin of the ILA to its bifurcation point was 1.48 ± 0.28 cm and to S₁ was 3.16 ± 0.78 cm. The distance between the ILA and bifurcation point of CIA was 6.15 ± 3.39 cm.

Conclusion: By knowing the anatomical features of the ILA and its relation to ON would be helpful in reducing the iatrogenic trauma to the neurovascular structures by the surgeons undergoing surgical procedure in the pelvic region.

70. Anatomical study of the origin and variations of renal arteries

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Objective: Renal arteries are a pair of blood vessels that branch off from the abdominal aorta and supply each kidney. The present study attempts to determine the origin and variations of the renal arteries. However, variations in the form of level of origin and arrangement of renal arteries are so frequent.

Materials and Methods: The study was carried out in 20 embalmed cadavers in the Department of Anatomy, KMC, Manipal University. The origin and variations of renal arteries were studied.

Results: Out of 20 specimens, 80% had one main renal artery, 10% had one main renal artery along with one accessory

artery and 10% with one main renal artery and two accessory arteries. The mean values of the origin of renal arteries from different levels are:

1. From superior mesenteric artery: 1.1 cm
2. From inferior mesenteric artery: 5.52 cm
3. From the level of bifurcation of aorta: 9.74 cm

Conclusion: Awareness of the normal as well as variations in the renal arteries is mandatory for the surgeons, radiologists and urologists, for doing any uroradiological procedures or angiographic studies.

71. Study of handedness and facial asymmetry in teenagers and elderly people in Medchal Town

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Abstract The aim of this study was to investigate the distribution and frequencies of facial asymmetry and handedness. It was also intended to study the correlation between these two different functional traits. 613 healthy co-operative volunteers between the age group of 13 & 15 years and 55 & 75 years were selected for the study. Subjects with any deformity of upper limbs & those with the history of injury to VII cranial nerve were excluded from the study. Personal data were collected from the subjects, by providing them a questionnaire, in which they also mentioned whether any of the family members was left handed, if so, their relation to the subject. Various tests were conducted to determine handedness & the asymmetry in the face. The standard Pearson chi-square statistic was used for checking the distribution of right and left hand habits composed through the questionnaire in several questions and 'Analysis of variance' was used to evaluate calculations for "contraction of platysma". Right-handed subjects were right dominant for vertical wrinkling of forehead ($p < 0.05$) for overall groups. Right-handed subjects were right dominant for winking ($p < 0.05$) for overall subjects. There was no significant correlation between handedness and lateral movement of angle of mouth. There is a significant right dominance for raising and everting of upper lip with dilatation of nostrils ($p > 0.05$) in elderly group (men and women). For contraction of platysma, ANOVAs test on three (right, left, ambilateral) options yielded with a best probability saying that there is no effect between all three options. A strong dominance towards the right was found in elderly people while most of the teenagers have shown ambilaterality for this character.

72. Anthropometric study of Halba Tribe in Gariyaband, District of Chhattisgarh State

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