

9

Surgical anatomy of gastrocolic trunk in relation to the head of pancreas: A cadaveric study



Singh Harsimran Jit*, D. Sahni, A. Aggarwal, R.K. Kocchar, T.D. Yadav, T. Gupta

Postgraduate Institute of Medical Education and Research, Chandigarh, India

Introduction: Gastrocolic trunk (GCT) is vulnerable to unexpected bleeding during the various surgical procedures like pancreaticoduodenectomy, superior and inferior head resection, etc. and is the leading cause of post-operative morbidity. Detailed knowledge of venous anatomy including anatomic variants of GCT in relation to head of pancreas becomes essential to minimize complication and post-operative morbidity.

Material and method: Blue colored cellulose acetate butyrate was injected into portal vein of 20 adult pancreas enbloc specimens. Gastrocolic trunk was identified and its tributaries and termination was traced. Distance of GCT from different parts of head was noted.

Results: Two types of configurations of GCT were observed: bipodal configuration (contributing veins – right gastroepiploic vein (RGEV) & anterior superior pancreaticoduodenal vein (ASPDV) was found in 15% of specimen, tripodal configuration (contributing veins – RGEV, ASPDV & superior right colic vein) was found in 85%. Orientation of GCT was horizontal in 40% of cases and obliquely downward with inclination to right in 60% of the cases. GCT joined right aspect of trunk of superior mesenteric vein (SMV) in 80% and anterior aspect of SMV in 20% cases. Gastrocolic trunk joined SMV 29.75 mm \pm 2.57 inferior to its confluence with splenic vein. Average distance of beginning GCT from duodenopancreatic groove was 21.30 mm \pm 8.48, from upper border of head of pancreas 11.65 mm \pm 4.70 and from lower border of neck of the pancreas was 22.46 mm \pm 5.45.

Conclusion: Understanding the venous anatomy of the gastrocolic trunk prior to conducting partial procedures may help to decrease in post-operative morbidity rates.

Conflicts of interest

The authors have none to declare.

<http://dx.doi.org/10.1016/j.jasi.2017.08.016>

10

Baker's cyst and its clinical significance



Soumitra Trivedi

AIIMS, Raipur, India

Introduction: The Baker's cyst is a bursa seen between medial head gastrocnemius and semimembranosus, which usually communicates with the cavity of knee joint, mostly asymptomatic. They can occur due to any intra-articular pathology including bony inflammation, cartilaginous lesions, meniscal or ligament tear, etc. The symptomatic cases are mainly leading to pressure effects due to anatomical vulnerability of surrounding structures. Although, Baker's cyst is a chronic disorder and after treatment also requires follow up to prevent relapses, it causes difficulty in differential diagnosis while presenting in acute state.

Case report: During routine dissection classes, it was noted that a thick fascial ballooning existed on the back of popliteal fossa on postero-medial side present between the medial head of

gastrocnemius and semimembranosus. The cystic swelling was in continuation with the capsule of knee joint.

Discussion: Baker's cyst remains asymptomatic having mild pressure effects on surrounding muscles, but their increase in size lead to neural or vascular symptoms or both. The neurovascular bundle present around the cyst includes the tibial nerve, sciatic nerve, common peroneal nerve, popliteal vein and popliteal artery. Compression of these structures might present as neuropathies, gastrocnemius muscle atrophy, intermittent ischemia or critical posterior compartment syndrome. Diagnosis often becomes crucial, which is achieved by Venous Duplex scanning and ultrasound imaging or MRI. Open surgical excision of the cyst by posteromedial approach is usually done. Arthroscopic valve closure along with excision of the cyst using posteromedial approach has also shown good result.

Conflicts of interest

The author has none to declare.

<http://dx.doi.org/10.1016/j.jasi.2017.08.017>

11

Branching pattern of renal artery and its clinical significance: A cadaveric study



Neeta Chhabra*, Vandana Tomar, M.S. Ahuja

Army College of Medical Sciences, Delhi, India

Introduction: Anatomical variations in the vascular pattern of kidneys have been well documented in medical literature. Normally each kidney is supplied by a single renal artery. Multiple renal arteries are unilateral in approximately 30% of patients and bilateral in approximately 10%. Aim of the present study is to highlight multiple variations in renal vascular pattern in North Indian Population.

Material and method: Renal arterial pattern of a total of 51 kidneys (28 right and 23 left) were studied after careful dissection of the hilar region.

Results: 64.7% (33 kidneys) were supplied by a single renal artery. Variations were observed in 35.3% (18 kidneys). Out of which 27.5% (14) belonged to right and 7.85% (4) to left.

Conclusion: Awareness of variations of renal artery is necessary for surgical management during renal transplantation; repair of abdominal aorta aneurysm, urological procedures and for angiographic interventions. During renal transplant and kidney retrieval surgeries a failure in recognizing these anomalies may lead to severe hemorrhage and graft loss.

Conflicts of interest

The authors have none to declare.

<http://dx.doi.org/10.1016/j.jasi.2017.08.018>

12

Correlation between hand digit ratio (2D:4D) and age at menarche



Amit P. Tirpude*, Manisha Gaikwad

AIIMS, Bhubaneswar, India

Introduction: Prenatal steroid levels, estimated as the ratio of second to fourth digit length (2D:4D) have been related to reproductive success in women, but direct association between digit

ratio and physiological measures of fertility remain rare. Recent studies have found contradicting facts about relationship of ratio with recalled age at menarche.

Methods: We addressed this question in urban resident first year MBBS & nursing students of same age group. Digit ratio was calculated with the help of electronic vernier caliper and age at menarche was noted by verbal recall.

Results: We found non-significant correlation between right or left or combined digit ratio and recalled age at menarche.

Conclusion: No detectable association of between digit ratio and age at menarche is present.

Conflicts of interest

The authors have none to declare.

<http://dx.doi.org/10.1016/j.jasi.2017.08.019>

13

An anatomical study and clinical co-relations of mandibular foramen in dry adult human mandibles of north Indian origin



Israr Khan

Jawaharlal Nehru Medical College, Aligarh Muslim University, India

Introduction: The mandibular foramen is located on the medial surface of ramus of mandible. It transmits inferior alveolar nerve. Inferior alveolar nerve block is a common procedure done by dental practitioners while doing various surgeries on mandible. The aim of this study is to determine the position of mandibular foramen in respect to various landmarks present on the mandible.

Methods: 30 adult human dry mandibles of north Indian origin were studied. The position of mandibular foramen from various landmarks was measured on both sides of the ramus. All the measurements were taken with the help of a digital caliper as per standard anthropological conventions.

Results: In our study we found the mean distance from mandibular foramen to anterior border of ramus was 16.06 ± 1.99 mm and 16.13 ± 2.10 mm on the right and left sides respectively and from mandibular foramen to posterior border of ramus was 12.02 ± 1.99 mm and 11.10 ± 1.95 mm on the right and left sides respectively. The Mandibular foramen is positioned at a mean distance of 18.79 ± 2.79 mm on the right side and 18.71 ± 2.77 mm on the left side, from the mandibular notch.

Conclusion: In the present study the localization of mandibular foramen presented great variation. However if we keep these anatomical landmarks in our mind we can accurately locate the position of mandibular foramen and this will help us to create successful anesthesia and to perform good surgeries on the mandible.

Conflicts of interest

The author has none to declare.

<http://dx.doi.org/10.1016/j.jasi.2017.08.020>

14

Variations in the external morphology of gall bladder: A cadaveric study in south coastal population



Madala Venkateswara Rao*, Lattupalli Hema

Narayana Medical College, Nellore, India

Background: Variations in the pattern of the extra hepatic biliary tract are usual and are commonly encountered during some radiological investigations or in operation theatres. Such variations of the morphology of gall bladder have been well documented in the literature for many years but a detail morphological study of variations of the gall bladder and its incidence is very rare. In this era of quick results, increasing use of diagnostic and interventional procedures makes it important to study variations of gall bladder morphology. Most of the interventional procedures in this modern era are done laparoscopically and there is tremendous increase in the number of laparoscopic cholecystectomies. So, sound knowledge of possible variations in morphology of gall bladder is important.

Materials and methods: This study was undertaken on 90 cadaveric liver and gall bladder specimens in terms of length, maximum transverse diameter, and shape, external variations of gall bladder, interior and length of gall bladder below the inferior border of the liver.

Results: Gall bladder had length ranging between 3 and 10 cm, transverse diameter between 2.0 and 5.0 cm. The commonest shape observed in this study was pear shaped in 82.22% of cases. The length of gall bladder below the inferior border of liver varied between 0.4 and 2.5 cm.

Conclusion: The growing importance of such variations, lie not only from the point of biliary disease but also with respect to the various invasive techniques in the diagnosis and treatment of gall bladder and extra hepatic bile duct disease.

Conflicts of interest

The authors have none to declare.

<http://dx.doi.org/10.1016/j.jasi.2017.08.021>

15

Anatomical study of supratrochlear foramen of humerus and its clinical significance



Meghana Joshi*, Divya Chavda, V.H. Vaniya, Ila Sutterwala

Government Medical College Baroda, Gujarat, India

Introduction: Supratrochlear foramen (STF) is located on the bony septum that separates the olecranon fossa, at the lower end of humerus. The present study is aimed to observe STF, along with the morphometric study of its shape, transverse and vertical diameter of foramina.

Material and method: Dried human 250 bones of unknown age and sex, free from pathological changes obtained from the bone store of the Department of Anatomy, Medical College Baroda. The presence of STF and its shape was observed, further classified into round and oval. The transverse and vertical diameter were measured by the digital vernier caliper and obtained data were analyzed statistically.

Result: Out of the 250 humerus STF was found in 81 bones, showed total incidence of 32.4%, on right side 26.4% (33 out of 125) and on left side 38.4% (48 out of 125). The round and oval shape