Reviews in brief


This study of the radiological anatomy redefines the carotid groove and its relations to the parapharyngeal and prespinal spaces. The carotid groove is separated from the parapharyngeal space by the styloid sheet and from the prespinal space by the longus capitis and scalenus anterior muscles. The authors present excellent CT images which almost seem to be traced from traditional anatomical sections.


NMR imaging of the neck was done in 24 patients and showed better definition of the vascular structures and lymph nodes compared to similar CT images. Furthermore, the skeleton of the larynx and the visceral structures of the neck were demonstrated as clearly as on CT imaging and thus NMR should be developed as a necessary procedure for the investigation of cervical pathology.


CT imaging of the supramesocolic region of the abdomen in 200 patients demonstrated the presence of the gastrohepatic ligament in 182 cases (91%). In 85% of these cases the ligament measured 6 mm or less in thickness while in 27 cases it was more than 6 mm thick. The anatomical and pathological variations of the gastrohepatic ligament were studied in normal subjects and patients presenting malignancy in this region, i.e. cancer of the stomach, pancreas or abdominal esophagus. Malignant invasion of lymph nodes could be detected in certain cases where the diameter of the nodes was greater than 8 mm.


The authors studied the anatomy of the heart in 10 patients. The results of NMR imaging obtained with a 0.15 T prototype were compared to those shown by tomographic radionuclide scanning with thallium – 201 and anatomical sections. The excellent quality of the RMN images argues in favor of the use of this technique to avoid the administration of ionizing radiation and iodinated contrast material.


The authors present a study of the topography of the superficial palmar arteries using a doppler ultrasonic flowmeter in 25 patients aged 20 to 30 years old. A topographic classification is proposed based on the different course of these arteries. Of the 50 hands studied, a fully developed superficial palmar arch was seen in 84% of cases. The common palmar digital arteries were seen to arise from the superficial palmar arch in 94% of cases and from the lateral palmar collateral artery of the index finger in 6% of cases. The main artery of the thumb and the lateral palmar collateral of the index finger showed a highly variable origin and course that were quite different from their classical descriptions. In 52% of cases the topography of the superficial palmar arteries displayed right-left asymmetry.


Narrowing of the piriform recess (inlet of the nasal fossa) can lead to a functional disturbance known as the aspiration syndrome of the nasal wings. The authors measured the dimensions of this orifice in 100 post mortem specimens. An index of its form was evaluated and a correlation sought between the morphology of the recess and that of the cranium. The size and shape of this recess seem to depend upon ethnic origin and are apparently independent of the anthropological type of skull.


Bilateral post mortem study of 26 fetuses and 8 adults was done to precisely identify the radicular territory of the dorsal spinal rootlets. The results of this work show that numbering of the dorsal rootlets beginning at the 12th thoracic nerve allows to identify spinal level down to L5 and S1 with a significant confidence level of 99% and 95%, respectively. Caudal to S1, cranio-
caudal numeration is of no value. In the caudocranial direction numeration from the first coccygeal nerve to S1 and from S1 to L4 allowed spinal level detection with a significant confidence level of 99% and 95%, respectively.


The aim of this anatomical study performed in 10 subjects was to demonstrate that Roos’ axillary approach via resection of the first rib allows to free the neurovascular structures and to approach the inferior roots of the brachial plexus in order to achieve neurolysis.


The duodenopancreatic unit was removed on autopsy in 103 cases. Categorization of the distal end of the main pancreatic duct followed by roentgenography demonstrated the absence of fusion of Santorini’s and Wirsung’s canal in 5 cases. Eleven cases of embryonic pancreases defined by the absence of fusion of the embryonic pancreatic buds thereby leading to a lack of communication between the two ductal systems of the pancreas, were seen by the authors in a previous study of 139 autopsy specimens. The combined results of the two studies thus revealed the presence of this anomaly in 16/242 cases (6.6%). Some authors have attempted to establish a correlation between the existence of this anatomical variation and the occurrence of episodes of acute pancreatitis, although no hypothetical pathogenic mechanism has yet been retained.


The authors studied 54 anatomical specimens of which 25 were injected with vinyl chloride copolymer and then subjected to corrosion, while 29 specimens were studied by dissection subsequent to fixation in 10% neutral formalin. Forty-six animal hearts were also studied by the above technique of injection-corrosion. Analysis of the anatomical specimens demonstrated that the crista ventricularis (whose role in the formation of the pulmonary infundibulum is well known) was vascularized by the two coronary trunks in 47.3% of cases, i.e. only the arteries of the ventricular crest and anterior septal arteries, and in 29.5% of cases by these arteries plus the artery of the A–V node and its collaterals. In 6.8% of cases the crista ventricularis was supplied by the arteries of the ventricular crest and the anterior septal and posterior parietal arteries. The crista ventricularis seems to play a fundamental role in the communication between the two coronary arterial systems.

**Some aspects of the vascularization of the iris.** Bossy J (1983) Bull Assoc Anat 67

In all major studies concerning the vascularization of the iris reference is made to the works of Theodore Leber, published in 1864. The existence of the greater arterial circle of the iris has not been questioned, whereas the presence of the lesser arterial circle is a subject of considerable debate. The lesser arterial circle is apparently formed by the anastomoses of the radiating arteries and lies in the presphinicteric region. Its topography has been identified by fluorescent angiography, among other techniques. The author studied these arterial circles by serial coronal sections of the iris from three adults and three neonates. The vascular supply to the iris can be summarized as follows: the greater arterial circle gives off an artery to each ciliary body, whereas the veins lie in a more posterior position; in the region of the iris one radiating artery can be found on average for 3 or 4 veins which tend to lie at the same level as the artery; the lesser arterial circle lies in the ciliary zone and is a discontinuous and variable structure; the rich vascularization of the region of the sphincter comprises numerous small vessels running in the anteroposterior direction to form a pre- and retrosphinicteric capillary network; the marginal circle is consistently present as an arteriovenous, arterial or venous system.


The cervical spine from a male cadaver was studied by serial horizontal CT cuts and anatomical sections. Horizontal sections of the entire cervical spine were made every 6 mm. A total of thirty cuts was made from the 2nd thoracic vertebra to the base of the skull. Each anatomical section was compared to the corresponding CT image. The anatomical features of the cervical spine were highly similar when the two techniques were compared. The use of CT to study the pathology of the cervical spine in vivo is a noninvasive method of choice allowing investigation of both the soft tissue and bone.

**The role of the psoas major based on the dissection of 10 adult and 10 neonatal cadavers.** Le Floch, Pringent P (1983) Bull Assoc Anat 67

The psoas major extends from the lumbar spine to the lesser trochanter and thus runs in front of the anterior edge of the iliac bone and hip joint. The role of this muscle in flexion and rotation of the hip was studied by direct traction on it in 20 dissected muscles from 10 adults and 10 neonates. When its fixed point of attachment is on the lumbar spine the psoas major plays a significant role in flexion of the hip joint. Its action in lateral rotation is greatest when the hip is previously positioned in abduction or medial rotation since the lesser trochanter lies in a posterior position.


This study of the anatomy of the ophthalmic artery and its intraorbital branches confirms the great variability of the orbital arterial system. A total of 38 dissections (8 in animals) was made. A summary of the embryology and comparative anatomy allows to explain the basic variations of this artery and its branches and to underline the dual complementarity of the internal and external carotid systems, with the ophthalmic artery dependent on one or the other. The author also points out that the ophthalmic artery is a branch of the maxillary artery in the lower vertebrates and most mammals, whereas in the higher vertebrates it is a branch of the internal carotid artery. Its position at the junction of the two carotid systems