Conflicts of interest

The author has none to declare.

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Common trunk arising from ansacervicalis innervating infrahyoid muscles along with sternocleidomastoid muscle: a case report

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Objectives: Aim of the study is to see variation in the branching pattern of ansacervicalis and its relation to the surrounding nerves & vessels of the neck region.

Methods: During routine undergraduate dissection class, anterior triangle of a male cadaver of around 60 years was explored. The strap muscles, carotid arteries, internal jugular vein, vagus nerve & ansacervicalis was dissected. The specimen was washed, painted & photographs were taken.

Results: We came across a rare variant of ansacervicalis in which a common trunk was arising from the loop of ansa. This common trunk gave a branch to sternocleidomastoid & then trifurcated to supply sternohyoid, sternothyroid & inferior belly of omohyoid muscles.

Conclusion: Because of proximity of carotid artery, internal jugular vein, vagus nerve, thyroid gland detail anatomy of anterior triangle of neck needs special attention to avoid injury to the nerve & vessels. During surgeries of thyroid malignancies, carotid endarterectomy strap muscles need to be preserved & integrity of ansacervicalis should be maintained. If this common trunk is cut their will be loss of function of infrahyoid muscle leading to dysphagia & loss of voice production.

Conflicts of interest

The authors have none to declare.

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Cheiloscopy – a diagnostic and deterministic mirror for establishment of person identification and gender discrimination: a study participated by Indian medical students to aid legal proceedings and criminal investigations

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Positive foolproof identification of known or unknown, living or deceased individuals are the primary universal roles in forensic criminal or social investigations wherein the definite procedures such as finger printing, karyotyping, dental records play the direct role although expensive and technique sensitive. Herein lies the importance of oral and peri oral tissues in which cheiloscopy is an emerging, cost effective and simple technique. Cheiloscopy (derived from the Greek word cheilos which meaning lips) is the study of characteristic patterns of depressions and elevations, anatomically found on oral mucosa. Previous studies have proved that lip prints were unique permanent records of human being analogous to finger prints, hence its classification for a particular individual can be a source of antemortem record in future for a correct identity.

Materials and methods: The study sample comprised of 150 medical students i.e., 88 boys and 62 girls in age group of 18–21 years of Government Medical College, Raigarh, Chhattisgarh. With prior ethical clearance (vide ethical dispatch number 200 dated December 07, 2015) and informed consent, lip prints were recorded by application of a non smudged but thin and even coat of dark colored lip stick over the oral labial mucosa of the upper and lower lips and transferring the obtained replica to a cellophane paper fixed on to a permanent bond paper. The lip prints were analyzed with classification of Suzuki and Tsuchihashi for discrimination of gender in addition to individual personal identification and common lip print patterns in Raigarh.

Observation and results: The results showed that of the total 150 students, 133 (88.67%) were correctly identified. The common lip pattern among males in the study was Type III (28.41%). Among females, Type I (33.87%) was the dominant pattern. Males showed grading of lip print pattern as III > IV > II > I′ > I > V and females had a grading pattern was of II > I > I′ > III > IV > V.

Conclusion: As lip prints do not change during the life of a person hence still further studies needs to be undertaken to substantiate the cheiloscopic technique on the upper crest as a predominant technique for personal and gender identification.

Conflicts of interest

The author has none to declare.

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Unusual branching pattern of left gastric artery: a clinical interpretation

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Aim and objective: The celiac trunk (hepatolienogastric trunk or "Tripus Hallery"), the most important artery of the foregut arises from the abdominal aorta at the level of T12 vertebra. The trifurcation of celiac trunk into left gastric, common hepatic and splenic arteries is considered as the normal appearance. Anatomical variation of the celiac trunk is due to the persistence or abnormal development of the ventral splanchnic arteries. Many variations in branching pattern of celiac trunk have been reported which are common and usually asymptomatic. Left gastric artery variations are very rare and awareness of such anatomical variations has become specifically important in patients undergoing hepatobiliary surgeries and liver transplantation to avoid or minimize serious ischemic complications. Therefore, it was planned to illustrate the variations in branching pattern of left gastric artery.

Method: During routine dissection for undergraduates in Department of Anatomy, AIIMS, New Delhi, we observed anomalous arterial pattern of left gastric artery in 60 years old male cadaver.

Result: The coeliac trunk was 1.3 cm in diameter and trifurcated into left gastric, common hepatic and splenic arteries. We observed unusual variation in branching pattern of the left gastric artery. An accessory hepatic artery was arising from left gastric artery adjacent to the upper end of the lesser curvature. The accessory hepatic artery was further divided into two branches (6.5 cm from its ori-

gin), which was supplying the left lobe of liver and the cardiac end of stomach.

Conclusion: This case report presents additional information on the branching pattern of left gastric artery. Due to increase number of transplantation surgeries, the knowledge of deviations from the normal arterial pattern of gastrointestinal tract is of immense significance for surgical and radiological procedures pertaining to the liver and adjacent viscera.

Conflicts of interest

The authors have none to declare.

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Morphometric study of optic strut and it's relation with anterior clinoid process

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Introduction: In the parasellar region, anterior clinoid process (ACP) with its supporting structures like optic strut (OS), medial part of lesser wing of the sphenoid and roof of the optic canal are certain bony landmarks related to important elements like the cavernous sinus, internal carotid artery (ICA), optic nerve (ON) and the pituitary gland. Optic strut is a small bony pillar which connects the body of sphenoid to the infero–medial aspect of base of anterior clinoid process and is often removed during anterior clinoidectomy and optic canal decompression.

Materials and method: In the present study 25 dry skulls of North Indian adults were used from the Department of Anatomy, School of Medical Sciences, Sharda University, Greater Noida, UP. Broken bones were discarded and not used in the study.

Following morphometric measurements were taken on dry skulls using manual calipers and recorded:

1) Length of OS of both sides
2) Relation of location of OS with ACP

Statistical analysis was done and the results were tabulated.

Results: Length of optic strut was measured from the side of body of sphenoid to the ACP. Maximum and minimum length on right and left side were 6.0 mm, 2.0 mm; 6.1 mm, 2.0 mm, respectively. In most of the case OS was related to the anterior 2/3 of ACP.

Conclusion: This study provides the length, location and relation of OS with ACP in human skulls of Indian origin to provide a data for neuro-surgeons planning a procedure of parasellar region.

Conflicts of interest

The authors have none to declare.

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A study of the incidence of fifth pair of sacral foramina

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Low backache is a common condition affecting majority of the population. One of the causes is sacralization of lumbar vertebra. These are called lumbosacral transitional abnormalities which occur as a result of congenital anomaly in the segmentation of the lumbosacral spine. It includes either the involvement of L5 in sacrum or S1 into the lumbar vertebrae Bertolotti first observed the LSTV and stated that these abnormal vertebrae may produce low back pain due to arthritic changes which occur at the site of false articulation. LSTV are common with the prevalence ranging from 1% to 20%.

Context and purpose of the study: Lumbosacral transitional vertebrae occur as a congenital anomaly in the segmentation of the lumbosacral spine. Some previous workers have suggested the role of LSTV in low back pain, whereas others have contradicted the role of LSTV. This study helps clinicians to rule out LSTV/sacralization while diagnosing a case of low back pain. Presence of 5 pairs of ventral and dorsal sacral foramina has been observed. Such an increase in the number of foramina has been noticed quite frequently, hence the present study.

Results: Additional sacral foramina were found in 07 sacra.

Clinical implications: Sacralization is not related to low backache, it can remain asymptomatic for many years, however sometimes, it gives rise to pain which begins slowly and gradually gets worse which may be due to actual pressure on nerve/nerve trunks; ligamentous strain; compression of soft tissues between bony joints; by an actual arthritis if a joint is present; by bursitis if a bursa if present. There is no difference between the two sexes in the prevalence of sacralization contradicting previous claims that neither is more common in females nor was spondylolisthesis found more frequently in men. Investigations to diagnose such condition in clinical practice are plain X-rays, CT scan, and MRI.

Keywords: low backache, lumbosacral transitional vertebrae, sacralization, lumbarization.

Conflicts of interest

The authors have none to declare.

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Axillary artery branch variation – a case report

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Introduction: The axillary artery is a direct continuation of the subclavian artery. The axillary artery is usually described as giving off six branches. Variation in the branching pattern of axillary artery is not uncommon.

Case details: We report here an anomalous origin of profunda brachii as continuation of an arterial trunk arising from 3rd part of the axillary artery. This common trunk at its commencement passed between 2 roots of median nerve and gave branches of 3rd part of axillary artery before it continued as profunda brachii artery.