

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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#### 21

##### Morphometric study of optic strut and its 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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#### 22

##### 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 is 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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#### 23

##### 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.

The further course and branching pattern of profunda brachii were normal.

**Conclusions/clinical importance:** The knowledge of these variations is of anatomical, radiological and surgical interest to explain unexpected clinical signs and symptoms. This variation may have important clinical implications while performing subclavian vein puncture for central venous line and brachial plexus blocks. Such variations are also important in interpreting images and in carrying out surgical and anaesthetic procedures involving axillary artery.

#### Conflicts of interest

The authors have none to declare.

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#### An anomalous branch of cavernous ICA

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**Introduction:** As part of project on studying morphology and morphometry of internal carotid artery an anomalous case of an aberrant branch of internal carotid artery was observed.

**Case description:** The aberrant branch of cavernous ICA observed, seemingly fed the posterior circulation. This has been referred to in literature as persistent lateral type of trigeminal artery which arises from the precavernous segment of the ICA and courses along the trigeminal nerve to anastomose with the basilar artery forming a carotid–vertebra–basilar anastomosis. Its occurrence is 0.1–0.6%.

**Methods:** Scalp and cranium were cut transversely and brain was removed as per the steps given in Cunningham's dissection manual, securing the anterior cerebral and middle cerebral arteries in the base of the skull.

Complete intracranial part of ICA of both sides was exposed by dissection done from carotid canal to its termination as follows:

- The anterolateral surface of petrous temporal bone was cut from superior aspect to procure the petrous part of the artery.
- The parasellar part of the artery was procured by dissecting the cavernous sinus.
- The artery was removed from the cranium.

**Conclusions/clinical importance:** Visualization and recognition of these arteries is essential because trans-sphenoidal surgery for pituitary adenoma is dangerous in patients who have this variant.

#### Conflicts of interest

The authors have none to declare.

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#### An unnoticed variant of sirenómelia with constellation of multiple anomalies

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Sirenómelia is the rare fatal congenital anomaly characterized by a single midline lower limb, urogenital anomalies, Potter's facies and a single umbilical artery. Around 400 cases have been reported in the literature. Based on a number of feet and degree of fusion of lower limb bones its classified into seven different types. Sirenómelia was reported with associated anomalies involving multiple systems mainly of urogenital, respiratory as well as the alimentary tract system. In our case, we are reporting an unnoticed variation in the fusion of lower limbs and its rare association with tracheoesophageal fistula.

**Keywords:** sirenómelia, mermaid syndrome, tracheoesophageal fistula, Potter's facies.

#### Conflicts of interest

The authors have none to declare.

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#### Osteogenesis imperfecta – a rare case report

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**Objective:** Osteogenesis imperfecta (OI) is a genetic disorder characterized by increased bone fragility and low bone mass. It is also associated with recurrent pathological fractures numerous extraosseous features like blue sclerae, dentinogenesis imperfecta (DI), hyper laxity of skin and ligaments, hearing impairment and presence of wormian bones in the skull.

Most patients have mutation in one of the two genes encoding alpha chains of collagen type 1 (COL1A1 AND COL1A2). Type I collagen fibers are found in the bones, organ capsules, fascia, cornea, sclera, tendons, meninges, and dermis. Type I collagen, which constitutes approximately 30% of the human body by weight, is the defective protein in OI. Presently medical management in the form of bisphosphonates are beneficial to the patients, though their overall efficacy is still in question. Other treatments include growth hormone, parathormone, bone marrow transplantation and gene based therapy.

**Materials and methods:** A female still born baby was born in the Dept of O & G at IMS and SUM Hospital Bhubaneswar by a primigravida mother of age around 22 years of low socioeconomic status by normal delivery. The limbs were soft with fragile bones. The X-ray of the baby was done.

**Result:** The X-ray shows fracture of the right humerus and left femur.

**Conclusion:** Patients with OI presented late, predominantly with fracture of long bones, deformities and blue sclerae. Pamidronate therapy remarkably decreased fractures and pain in these patients.

