value 12.59 ± 1.33 cm and 10.33-15.91 cm with mean value 12.67 ± 1.21 cm respectively. The mean anteroposterior diameter in males and females were 8.94 ± 1.29 cm and 8.65 ± 1.46 cm respectively. Both the longitudinal and anteroposterior diameters of liver were increased as body weight and Body Mass Index (BMI) increased in both males and females.

Conclusion: As increase or decrease in liver size is an important index for some liver as well as systemic diseases. So, this study will identify the normal reference values for the Manipuri adult population in future.

Conflicts of interest

The authors have none to declare.

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Anatomical variations in intrahepatic portal vein ramification: A 64 slice CT study



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Aims and objectives: The variations in the intrahepatic branching pattern of Portal vein are mandatory factor while dealing with subsegmental hepatectomy and segmental liver resection. In liver transplantation the donor's safety is a primary concern and therefore the knowledge of intrahepatic vascular segmentation is necessary. The present study is based on intrahepatic portal vein branching to describe liver segmention by using 64 slice CT portography.

Material and methods: In the present study 20 patients were screened for vascular segmentation of liver, based on intrahepatic branching pattern of the portal vein by using 64-slice CT portography. CT liver portography was carried out with GE (General Electric) light speed VCT 64 slice MDCT machine and 4.4 version advantage workstation. 64 slice portography was performed by injecting 40–60 ml of iodinated contrast material (Omnipaque 350).

Results: In this study normal intrahepatic branching pattern of portal (Bifurcation) was observed in 60% (12) cases, whereas the abnormal pattern i.e. trifurcation in 20% (4) cases, right posterior branch first branch of portal vein in 10% (2) cases, absence of bifurcation in 5% (1) case and absence of right posterior branch in 5% (1) case has been observed. Accessory branches were also present in both right and left lobe that had been observed by using 64 slice CT scan. The finding will be discussed on the scientific platform.

Conclusion: The knowledge of intrahepatic branching pattern of portal vein are essential to ensure the positive surgical result in various surgical procedure.

Conflicts of interest

The authors have none to declare.

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Plastination of brain specimens by Orthocryl: A viable alternative?

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Aims and objectives: Tissue preservation is an important aspect in teaching Anatomy. Most of the organs and tissues are preserved in formalin with its own set of disadvantages. Plastination is a unique method of permanently preserving tissue in a life like state.

The classical way of Plastination developed by western authorities is a labour and equipment intensive affair. The expensive polymers and equipments are required to be imported at a higher cost. However certain studies on newer polymers have showed inexpensive ways to preserve anatomical tissues. The quality of these specimens matches those produced by the classical method.

Material and methods: PMMA based polymer called Orthocryl was used to plastinate the brain specimens. The specimens were made to undergo stages of dehydration, impregnation with polymers and curing. The results were studied and interpreted under various parameters.

Results: The results were interpreted under various parameters like shrinkage, retention of colour, odour, pliability and retention of gross anatomy. The study concluded that Orthocryl retained colour with minimal shrinkage. The gross Anatomy was maintained.

Conclusion: The study concluded that indigenous methods and materials can produce quality plastinates which can be an important adjunct to traditional methods of teaching.

Conflicts of interest

The authors have none to declare.

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Morphometric study of proximal femur in post-menopausal women: A radiological study

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Aims and objectives: The structure and geometry of femur play an important role in causing hip fracture. The aim of this study was to find out the correlation between proximal femoral geometry with fracture and non fracture cases in post-menopausal women.

Material and methods: Total 191 post-menopausal women over 50 years of age were included in the study out of which 27 were fracture cases (with femur fracture) and 163 were in control group (with no fracture). Age, height, weight were recorded for all cases of the study. The antero-posterior views of pelvic radiographs were taken. The radiographic measurements were performed in all cases, including the hip axis length (HAL), femoral neck shaft angle (FNSA), femoral neck axis length (FAL), femoral shaft width (FSW), acetabular width (AW) and femoral head width (FHW).

Results and conclusion: Hip axis length was significantly longer in fractured patients [mean value was 134.3 ± 5.7 mm in fractured group and 130.4 ± 6.2 mm in control group]. The femoral neck shaft angle was also significantly higher in fracture cases than in control group [mean value $132.8^{\circ} \pm 5.5$ in fractured group and $128.9^{\circ} \pm 5.9$

