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Variations in the division of sciatic nerve and its relation to piriformis muscle: A human foetal study



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Aims and objectives: The present study was done to find out the incidence of variant division of sciatic nerve in human foetuses and variation in the relation of the nerve to piriformis.

Material and methods: Fifteen IUD human foetuses (six male and nine female) were embalmed with 10% formalin and subjected to dissection in the gluteal region of both limbs to expose sciatic nerve. Levels of sciatic nerve division, relation of the nerve to piriformis muscle, distance of the nerve to greater trochanter, and to ischial tuberosity, distance of bifurcation of the nerve to intercondylar line, and length of sciatic nerve from its point of emergence below piriformis up to its bifurcation were noted. Significant photographs were taken.

Results: Of the fifteen foetuses studied, four showed variation in the division of sciatic nerve. Of these, three had same type of variation, i.e. early division of sciatic nerve with both common peroneal and tibial nerves emerging below piriformis. One foetus showed common peroneal nerve emerging in between two heads of piriformis muscle and tibial nerve emerging below piriformis muscle.

Conclusion: The commonest variation observed in our study was not described in Beaton-Anson classification. One foetus showed a variant piriformis muscle with two heads. Sciatic nerve entrapment resulting from various causes including piriformis syndrome can result in various clinical manifestations including foot drop. Anatomical knowledge about variations in the course and division of sciatic nerve and any updating in this regard definitely helps in the surgical management of various causes of sciatica.

Conflicts of interest

The authors have none to declare.

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Morphology of caecum and ileocaecal orifice in human fetuses of different gestational ages



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Aims and objectives: Embryologically, caecal swelling appears as a small conical dilation of the caudal limb of primitive intestinal loop. During rotation of gut it is located in right upper quadrant below right lobe of the liver. From here it descends into the right iliac fossa. The ileocaecal junction, where the ileum enters the caecocolon, present in different forms in fetuses. The present study has been conducted to locate the situation of caecum and shape of ileocaecal orifice at different gestational age of fetuses.

Material and methods: Thirty-eight fetuses ($n=38$) were procured from Dr. Sushila Tiwari and District Mahila Hospital, Haldwani. Fetuses were dissected, ileocaecal region was displayed. The position, shape of caecum and morphology of ileocaecal orifice were recorded in situ.

Results: Out of 38 fetuses caecum is conical in 19, quadrangular in 10 and right saccular in 9 fetuses. Position of caecum is right subhepatic in 18, right lumbar in 15 and right

iliac fossa in 5 fetuses. Shape of ileocaecal orifice is papillary type (circular in shape) in 29 fetuses and bilabial type in 9 fetuses.

Conclusion: In fetuses belonging to less gestational ages caecum is conical in shape, however as the gestational age is increasing, caecum is noticed as quadrangular in shape. With increasing gestational age, position of caecum changes from right subhepatic position to right iliac fossa while the shape of ileocaecal orifice changes from papillary type to bilabial type. The findings will be presented and discussed in the light of existing literature.

Conflicts of interest

The authors have none to declare.

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Fetal foot length for assessment of gestational age: A comprehensive study in north India



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Aims and objectives: Appropriate assessment of gestational age is paramount in obstetric care. Making appropriate management decisions requires accurate appraisal of gestational age. Accurate pregnancy dating may assist obstetricians in appropriately counselling women who are at risk of a preterm delivery about likely neonatal outcomes and is also essential in the evaluation of fetal growth and the detection of intrauterine growth restriction. The purpose of this study was to find out the other parameters such as foot length which can be used to determine the gestational age either more accurately or can be used in other conditions where the previous parameters are unreliable and can also be used as an adjunct in the diagnosis of many karyotypic defects and syndromes. This study is a part of Ph.D. thesis of first author under supervision of the second author.

Material and methods: Ultrasonographic measurement of foot length of 100 pregnant women was done in the Radio diagnosis Department. Sonographically we measured foot length from 15 to 36 weeks of gestation.

Results: In our study, the earliest age at which fetal foot length could be seen sonographically was found to be 15 weeks of gestation and mean foot length was 17.5 ± 1.29 and mean sonographic foot length at 36 weeks of gestation was 64.4 ± 3.28 .

Conclusion: From regression analysis a strongly significant relationship has been observed between fetal foot length and gestational age.

Conflicts of interest

The authors have none to declare.

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