

Conference Abstract

DAY 1 15th September 2023 (Friday)

ORAL 2

3.30-5.00 pm

Scientific Session 6

A Cross Sectional Study of Cord Index and Morphological Variations of Placenta and Umbilical Cord**Aman Jain, Vasudha Kulkarni**

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Background: Every year 30 million infants suffer from Intrauterine Growth Retardation (IUGR). The mean IUGR rate in India is 54%. The prevalence of low birth weight in India is 26%. Placenta is the vital foeto-maternal unit responsible for the maintenance of pregnancy, foetal growth and development. Furthermore, the umbilical cord serves a paramount role in foetal intrauterine persistence. Assessment of umbilical cord and placental dimensions thus determine the foetal outcome. In addition, the umbilical coiling index has an impact on perinatal outcomes.

Aim: The present study aimed at estimating the morphological variations of postnatal specimens of placenta and umbilical cords at our tertiary care centre.

Methods: A cross sectional study was conducted on 80 specimens of postnatal placentae and umbilical cords for 2 months. The umbilical cord length, diameter of vessels, umbilical coiling index (UCI) were estimated. Placental diameter, placental cotyledons, foeto-placental weight ratio, vascular pattern, placental coefficient and mode of attachment of umbilical cord were recorded.

Results: Mean diameter of placenta, average number of placental cotyledons, mean length of umbilical cord were analysed using SPSS 20. UCI of 10 th centile was classified as hypo coiled and UCI of >math>90</math> th centile as hyper coiled. The association between cord diameter and placental diameter was analysed by linear regression analysis. p value of 0.05 was considered as statistically significant.

Conclusion: Placental and umbilical cord morphometry gives us reflection of the antenatal events. Hypocoiled cords were associated with foetal distress and low birth weight whereas hyper coiled cords were associated with thrombosis of chorionic vessels and intrauterine growth retardation. The present study contributes to the platter of baseline data of placenta and umbilical cord morphometry to anatomists, sonologists, pathologists and gynaecologists.

Key words: Umbilical cord, placenta, coiling index