

Abstract

Title : A study of the gross anatomical variations of the human placenta in the population of Maduranthagam area.

Author: Deepthi Christus

Introduction: The placenta is an organ that connects the growing fetus to the wall of the uterus, to provide thermo-regulation to the fetus, nutrient uptake, waste elimination, and gas exchange through the mother's blood supply.

Aims and objectives: The examination of the human placenta post-delivery is vital for the neonatal management. This study was done to find some gross morphological variation in the placenta in the population of mothers in the area of Maduranthagam.

Materials and method :

100 placentas were collected from normal vaginal deliveries and caesarean sections from the Obstetrics and Gynaecology department and transported in plastic buckets filled with formalin to the Anatomy Department. The weighing scale, vernier caliper, inch tape, forceps scalpel, pair of scissors and measuring jar were used in examining the specimens.

Results: The average placental diameter was 18.93 ± 2.6 cm and thickness was 2.24 ± 0.5 cm. The average number of cotyledons was 18 ± 3 . The average placental weight in grams was 430 ± 97 gm and in volume was 443 ± 114 ml. The disperse pattern of

vasculature was seen in 57% and magistral type in 19% and mixed pattern in 24% of placentas. Cord insertion to the centre of placenta was seen in 44% , eccentric insertion in 27% and marginal in 29% placentas. The average umbilical cord diameter was 1.01 ± 0.23 cm. The average feto-placental weight ratio was 6.9 ± 1.6 and placental coefficient was 0.15 ± 0.03 . Placental calcification was observed in 30% of placentas.

Keywords: Placenta, feto-placental weight ratio, placental coefficient.