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MORPHOMETRIC STUDIES OF HUMAN PLACENTAS OF SRI LANKAN WOMEN OF LOW SOCIO - ECONOMIC STATUS

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Quantitative data on the structural composition of the human placenta are required for a better understanding of the effect of maternal nutrition on placental function. Similar studies have not been performed in Sri Lanka previously.

The following morphometric investigations were carried out on 54 term placentas collected from normal term deliveries at the Kandy General Hospital: (mean values of findings in brackets)

1. Trimmed placental weight (377.39 Gm).
2. Trimmed placental volume (369.76 ml).
3. Greatest diameter of placenta (19·4 cm).
4. Least diamter of placenta (16.56 cm).
5. Distance between the point of insertion of the cord and the placental margin (5.06 cms). and
6. Placental outline with the point of insertion of the cord.

Frequencies and vertical frequencies of gestational age, birth weight, and placental weight were determined. The gestational age, birth weight, height and head circumference were compared with the morphometric data of the placenta and a positive correlation was found between the birth weight and placental mass.

Since morphometric data are not available for Sri Lankan women our findings are compared with such data obtained from a group of middle class North American women. Most of the parameters studied were found to be significantly reduced in the local group. The significance of these findings in relation to maternal nutrition will be discussed.