

**A-21 Histopathological changes in placentas of pregnancies complicated by mild, moderate and severe hypertension**

M V C de Silva, M S Fernando, V Rasaiah

*Depts of Pathology & Obstetrics and Gynaecology, Faculty of Medicine, University of Colombo, Colombo 8*

Objective: to compare the histopathological changes of placentas in pregnancies complicated by mild, moderate and severe hypertension.

Sections from placentas of 102 normal and 63 hypertensive pregnancies were assessed for histopathological features. The hypertensive pregnancies comprised 33 cases of mild (diastolic blood pressure < 100mm Hg), 21 cases of moderate (diastolic blood pressure between 100-110mm Hg) and 9 cases of severe (diastolic blood pressure >110mm Hg) hypertension.

There was a statistically significant increase of syncytial knots in moderate ( $p = 0.000002$ ) and severe ( $p = 0.0000115$ ) hypertension when compared with the control group. Villous sprouts were significantly increased in moderate ( $p=0.0000001$ ) and severe ( $p = 0.000003$ ) hypertension but not in mild hypertension. There was no statistically significant increase of thickening of basement membranes, villous vascularity and calcification in all 3 groups of hypertension when compared with the controls. Lack of physiological changes in decidual vessels was seen in 10.52% of moderate (Fisher  $p = 1.35$ ) and 22.22% of severe hypertension (Fisher  $p = 0.038$ ). Atherosclerosis of decidual vessels was seen only in 1 case of moderate and 2 cases of severe hypertension.

Placentas of pregnancies complicated by mild hypertension did not show any significant histopathological changes. In moderate and severe hypertension there were increased villous sprouts and syncytial knots.