
Paper

Placental changes in pregnancy induced hypertension

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Abstract

Objective: To study the histomorphological changes in placentae of pre-eclamptic mothers and to compare them with placentae of normotensive mothers.

Method: This study was carried out in 34 placentas of mothers who had pregnancy induced hypertension (PIH) and 34 placentas of normotensive non diabetic mothers in the Department of Pathology, University of Sri Jayewardenepura. Placentae were fixed in normal saline for 48 hours. After fixation the placentae were divided into four quadrants and 5mm pieces of tissue were taken from the center, upper and lower quadrants. After tissue processing and staining, the histomorphological changes were studied in both normotensive and hypertensive groups after obtaining clinical details from the bed head tickets.

Results: Infarctions, small villi and numbers of syncytial knots and vasculosyncytial membrane were significantly higher in the study group

compared with the control group. The severity of hypertension correlated with the extent of the placental infarcts.

Conclusion: A significant number of both macroinfarcts and microinfarcts with an increased number of syncytial knots was observed in the hypertensive group as compared to normotensive group which may be due to placental hypoxia.

Key Words: Placenta, Pre-eclampsia, Syncytial knots, Vasculosyncytial membrane.

Introduction

The placenta is the interface between the foetus and the mother. The survival and growth of the foetus is essentially dependent on the formation and the full development of the placenta. It undergoes changes in weight, volume, structure, shape and function continuously throughout gestation to support the prenatal life⁽¹⁾. The examination of the placenta in utero as well as postpartum, gives

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