Journal of Obstetrics and Gynaecology Research
Volume 33, Issue 1, February 2007, Pages 56-62

Morbidity and mortality associated with pre-eclampsia at two tertiary care hospitals in Sri Lanka

Dissanayake, V.H.W.[a b c e], Samarasinghe, H.D.[a], Morgan, L.[b], Jayasekara, R.W.[a], Seneviratne, H.R.[d], Pipkin, F.B.[c]

[a] Human Genetics Unit, Faculty of Medicine, University of Colombo, Sri Lanka
[b] Division of Clinical Chemistry, School of Molecular Medical Sciences, University of Nottingham, Nottingham, United Kingdom
[c] Division of Obstetrics, School of Human Development, University of Nottingham, Nottingham, United Kingdom
[d] Department of Obstetrics and Gynecology, Faculty of Medicine, University of Colombo, Sri Lanka
[e] Human Genetics Unit, Faculty of Medicine, University of Colombo, Kynsey Road, Colombo 8, Sri Lanka

Abstract

Aim: To report the occurrence of morbidity and mortality associated with carefully phenotyped pre-eclampsia in a sample of nulliparous Sinhalese women with strictly defined disease. Methods: A phenotyping database of 180 nulliparous women with pre-eclampsia and 180 nulliparous normotensive pregnant women who were recruited for a study into genetics of pre-eclampsia was analyzed. Results: Women who developed pre-eclampsia had significantly higher systolic blood pressure (SBP; P = 0.002) and diastolic blood pressure (DBP; P = 0.002) at booking (at approximately 13 weeks of gestation). 38.3%, 28.3% and 33.3% of women delivered at <34 weeks, at 34-36 weeks, and at term, respectively. 78% required a cesarean section. Complications included SBP ≥ 160 mmHg (75.5%); DBP ≥ 110 mmHg (83.8%); proteinuria ≥3 + (150 mg/dL) in the urine protein heat coagulation test (87%); renal failure requiring dialysis (2%); platelet counts <100 × 10^9/L (13%); ≥70 U/L in aspartate and/or alanine aminotransaminase (15%); placental abruption (4%); eclampsia (9%); and one maternal death. Maternal complications indicative of severe disease, apart from the incidence of SBP ≥ 160 mmHg and DBP ≥ 110 mmHg, were not significantly different in early and late-onset pre-eclampsia; fetal outcome was better with late-onset disease. 48% of babies were small for gestational age. Only 80 of 135 babies of women with pre-eclampsia whose condition could be confirmed at 6 weeks post-partum were alive. Conclusions: Pre-eclampsia in Sinhalese women is associated with severe maternal morbidity and fetal morbidity and mortality, suggesting that modification of the Western diagnostic criteria and/or guidelines for medical care may be necessary. There is an urgent need to improve neonatal intensive care services in Sri Lanka.