

Abstract

OBJECTIVE: To examine the role of placental inflammation in adverse obstetrical outcome (AOO). **METHODS:** Analysis of perinatal data of 701 randomly selected mothers of singleton infants, Mombasa, Kenya. **RESULTS:** There were 661 (94.3%) live infants and 40 (5.7%) stillbirths. Out of the live born infants, 78 (12.4%) had a low birth weight (LBW < 2500g); 33 of them were preterm and 41 small for gestational age (SGA). The incidence of neonatal sepsis and post partum endometritis was 3.6 and 19.8%, respectively. The perinatal death rate was estimated to be 7.3% (51/701). The prevalence of acute placental inflammation was 19.6%. Acute placental inflammation was independently associated with preterm low birth weight (ARR=3.8, 95% CI=1.7-8.9, P<0.01), stillbirth (ARR=2.3, 95% CI=1.1-5.0, P=0.03) and perinatal death (ARR=2.8, 95% CI=1.4-5.4, P<0.01). Women with acute placental inflammation had a two-fold higher risk for AOO (32.6 versus 15.2%, respectively, ARR=2.5, 95% CI=1.3-4.8, P<0.01). Other risk factors for AOO were bad obstetrical history, low haemoglobin level and leucocytosis. **CONCLUSIONS:** The incidence of adverse obstetrical outcome defined as low birth weight, low Apgar score, perinatal mortality and post partum endometritis, was high in this population. Acute placental inflammation was associated with preterm birth, stillbirth and perinatal death. More research is needed to study the role of infection in adverse obstetrical outcome, and to design interventions to decrease infectious morbidity and mortality in pregnancy.