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Perinatology

FETAL TRANSFUSION Maternal and fetal hemodynamics, placental blood flow, fetal–placental blood volume, and fetal blood volumes were measured in six chronic sheep preparations to evaluate changes during acute fetal hypoxia induced by maternal hypoxia. During fetal hypoxia, the maternal and fetal arterial blood pressures and heart rates were essentially unchanged. Placental blood flow (control = 325 ml/kg/min) was also unchanged during the hyposic period. However, the placental blood volume decreased significantly from 65 to 60 and 51 ml/kg after 15 and 30 minutes of hypoxia, respectively. Fetal blood volume increased reciprocally and significantly from 86 to 109 and 102 ml/kg after the same periods of hypoxia, since the fetal–placental blood volumes were unchanged. These blood volume changes persisted for 30 to 60 minutes following cessation of hypoxia. Placental vascular resistance, measured in six experiments, showed a significant increment during hypoxia, suggesting placental vasoconstriction as the responsible mechanism for the reduction of placental blood volume and reciprocal increase in fetal blood volume. The data suggest that significant placental transfusion to the lamb fetus may occur *in utero* during fetal hypoxia, resulting in a higher fetal blood volume before birth. *(William OH, and others: Placenta to Lamb Fetus Transfusion in Utero during Acute Hypoxia, Am J Obstet Gynecol 122: 316–322, 1975.)*

NEONATAL SCALP INFECTION This communication relates a case report of fatal scalp infection in a newborn infant. Fetal heart rate monitoring *in utero* was performed with the widely used spiral scalp electrode. At birth, the puncture mark was evident, and the infant did well until 14 hours of age, when an apneic episode occurred, followed by lethargy. X-ray of the head revealed air density in the tissues of the right occipital area. The infant did poorly and died at 44.5 hours of age. Cultures taken from the pneumatized scalp and the infant's blood grew *E. coli*. This apparently is the first time fetal scalp electrodes have been implicated as the cause of a fatal complication. *(Turbeville DF, and others: Complications of Fetal Scalp Electrodes: A Case Report. Am J Obstet Gynecol 122: 530–531, 1975.)* ABSTRACTER'S COMMENT: The rewards of fetal monitoring far outweigh the dangers. Could this complication be prevented by prepping the presenting part (portion of scalp accessible through the cervix) with povidone–iodine?