

LETTER TO EDITOR (VIEWERS CHOICE)

GASTROSCHISIS AS A COMPLICATION OF INTRA - UTERINE VESICO-AMNIOTIC SHUNT

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A premature newborn male was born to a 27 years old gravida one mother referred from another tertiary care hospital with complaints of preterm labor pain at 33 weeks gestation. The antenatal record revealed the presence of oligohydramnios, bilateral hydronephrosis and a minimally enlarged bladder at 22 weeks of gestation on initial routine sonographic examination with possibility of posterior urethral valves (PU valves). Two weeks later intrauterine vesico amniotic shunt (VAS) was placed between the fetal bladder and the amniotic cavity. The follow-up fetal ultrasound showed anhydroamnios, small kidneys, non-visualization of urinary bladder with the shunt in situ and appearance of gastroschisis.

Mother was started with dexamethasone for lung maturation and 2 days later a caesarean section was performed in our hospital. The birth weight of the newborn was 1.009 kg and apgar score of 3 and 8 at 1 and 5 min of age respectively. At birth the newborn was noticed to have Potter's facies and an abdominal wall defect just right of the umbilicus with most of the intestinal loops protruding out of it, not covered with membrane. The bowel loops were free, non edematous and resembled normal intestines. A catheter with a metallic tip was also visible lying near to a normal three vessel umbilical cord. (Figure1) The baby required immediate intubation due to severe respiratory distress at birth and was transported to neonatal intensive care unit with the intestinal loops wrapped in saline soaked sterile gauze pieces. The pediatric surgeon was consulted and the gastroschisis was reduced at the bedside. Renal ultrasonography showed bilateral absent kidneys and non-visualization of bladder. The chest radiograph done at 2 hrs of age was suggestive of hypoplastic lungs. The infant died of pulmonary hypoplasia at approximately 12 hours of life.

Figure 1: Gastroschisis with visible end of Vesico-Amniotic Shunt



Fetal lower urinary tract obstruction affects 2.2 per 10 000 births.(1) It is a condition of high mortality and morbidity associated with progressive renal dysfunction and oligohydramnios, and hence fetal pulmonary hypoplasia. Out of the various therapeutic fetal interventions available the VAS remains the most widely used procedure. But still its use remains controversial due to high rate of fetal mortality & morbidity associated with it. The various complications include inadequate shunt drainage or migration, onset of premature labour and miscarriage, amniorrhexis, chorioamnionitis, and iatrogenic gastroschisis.(2,3) In our case renal prognosis was not changed after the intervention and was complicated by appearance of gastroschisis. In the future other less invasive and/or more sophisticated techniques like fetal cystoscopy or LASER valve ablation may prove to be more effective and safe.

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