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Porencephalic cysts after amniocentesis

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SUMMARY An infant with porencephalic cysts associated with midtrimester amniocentesis is reported. CNS anomalies after amniocentesis have not been reported in live neonates.

Midtrimester amniocentesis can be a helpful diagnostic procedure, but several complications have been reported.¹ An injury to the fetus is rare but such injuries have included skin scars, bowel obstruction, ileocutaneous fistula, cardiac tamponade, laceration of the spleen, ocular trauma, pneumothorax, cord haematoma, fetal haemorrhage, and limb deformity.

Case report

A 5-month-old girl was seen because of unusual eye movements. Both parents were β -thalassaemia trait carriers but were otherwise healthy. Amniocentesis was performed in the 18th week of gestation to find out the haematological status of the fetus. Placental aspiration was uneventful. An 18 gauge needle with trochar was used and several specimens of fetal blood were obtained from the placenta. Haematological examinations indicated that the fetus was normal.

The baby was delivered at term by caesarean section because of fetal distress. She was cyanotic at birth and required resuscitation. Birthweight was 3.2 kg. Since birth frequent, rapid, jerky movements of her eyes have been noticed, lasting 3 to 4 seconds. On examination the infant was alert and smiled responsively. Two small (8 × 5 × 5 mm) subcutaneous nodules were noticed, one in the right posterior temporal area and the other in the right occipital area. Both nodules were present at birth. The anterior one was hard and painless with scar tissue on the overlying skin. The posterior one was

painful and on the overlying skin there was a narrow sinus surrounded by scar tissue. A slight bloody discharge was produced from this sinus during the first days of life. Head circumference was 41 cm (25th centile). There was a moderate plagiocephaly. Transillumination of the skull showed an area of increased transillumination over the right occipito-temporal area. No optokinetic nystagmus could be produced and the patient had a probable left visual field defect. Fundi were normal. There were frequent, jerky, vertical eye movements, lasting 3 or 4 seconds, and resembling opsoclonus (dancing eyes). These movements were not accompanied by any movement of the trunk or limbs. The patient controlled her head well, but there was a significant degree of torticollis. She also had a slight left hemiparesis.

Figs 1 and 2. CT scan of the patient's head showing extensive cerebral defects on the right hemisphere.

Chest x-ray, intravenous pyelogram, and urine vanilylmandelic acid were normal. Electroencephalogram showed asymmetry with slow-waves over the right occipito-temporal area. A computerised tomography (CT) scan showed extensive defects of the right occipital and temporal lobes compatible with porencephalic cysts (Figs 1 and 2).

Discussion

No central nervous system malformations associated

with amniocentesis have been reported in live newborn babies. Subdural haemorrhage and damage of brain tissue caused by amniocentesis has been found at necropsy in a stillborn baby.² The presence at birth of the 2 subcutaneous nodules overlying the cerebral defects suggests that the amniocentesis needle might have been responsible for the brain lesions. The mechanism of porencephalic cyst formation is not clear. Intracerebral haemorrhage however, could have led to cyst formation.

Although second trimester amniocentesis appears to be a fairly safe procedure, it can lead to serious fetal trauma,³ although it is rare. It is obvious that the rare complications do not outweigh the value of amniocentesis in prenatal diagnosis of β -thalassaemia.⁴ This is particularly true in countries such as Greece where β -thalassaemia trait is common.

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Gluteal skin necrosis after umbilical artery catheterisation

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SUMMARY Three infants are reported who developed gluteal skin necrosis as a result of umbilical arterial catheterisation. It is important to examine the buttocks and back of every baby catheterised, so that early remedial action can be taken.

Indwelling umbilical arterial catheters are used extensively in neonatal intensive care. Originally they were inserted for the purpose of arterial blood sampling and the infusion of fluids, but their use has

been extended to include the continuous measurement of arterial PO_2 and blood pressure. It is well known that umbilical arterial catheterisation is associated with ischaemic complications as a result of thrombosis, embolism, or arterial spasm.¹ I report 3 cases of an unusual complication—gluteal skin necrosis.

Case reports

Case 1. A boy of 27 weeks' gestation weighing 820 g