Background Anomalies of the fetal central nervous system (CNS) require considerable expertise. In 2010 we launched a Perinatal Neurosurgical Clinic, wherein fetal CNS anomalies are assessed and counselled by a multi-disciplinary team, comprising a fetal medicine specialist, a paediatric neurosurgeon, a paediatric radiologist and a specialist nurse.

Materials and Methods A prospective review of all patients referred to our clinic from Jan 2010 to July 2012. All cases were triaged initially by a fetal medicine specialist to confirm diagnosis. If warranted, a fetal MRI was obtained prior to referral. Individual patient records were examined to determine pregnancy outcome.

Results Over the study period, 122 fetal CNS anomalies (excluding choroid plexus cysts) were seen. Of these, 41 women (34%) were referred to the Neurosurgical Clinic, including 1 case each of caudal regression syndrome, neuronal migration disorder, sacrococcygeal teratoma, AV malformation, agenesis corpus callosum, cerebellar hypoplasia and thoracolumbar gibbus (*Table*). Median gestation at referral was 30.5 weeks. Three women opted for termination. Of the remaining cases, 53% underwent fetal MRI. In 35%, MRI was considered to alter the diagnosis and counselling. 60% of women underwent caesarean delivery, at a median 38.8 weeks. Excluding 3 cases of holoprosencephaly, the perinatal mortality rate in this high risk cohort was 0%.

Abstract PF.69 Table

Diagnosis	Total	Referred to Perinatal Neurosurgical Clinic
Ventriculomegaly	47	7
Neural Tube Defect	37	18
Holoprosencephaly	10	3
Dandy-Walker syndrome	19	4
Other	9	9
TOTAL	122	41

Conclusion A multi-disciplinary Perinatal Neurosurgical Clinic offers excellent potential, both in expert management of common CNS anomalies, such as neural tube defects, and in the assessment of much rarer fetal CNS anomalies.

PF.70 PRENATAL DIAGNOSIS, MAINTAINING HIGH STANDARDS: REFLECTIONS ON 200 CONSECUTIVE PROCEDURES

doi:10.1136/archdischild-2013-303966.078

MM Johnson, K Navaratnam, MG Davies. *Southport and Ormskirk Hospitals, Ormskirk, UK*

Aims To assess the local compliance for CVS and Amniocentesis, with RCOG Green-top standards[1]. Additionally, examine the indications for prenatal diagnosis, results and outcomes.

Background 1:20 pregnant women in the UK are offered prenatal diagnosis, amounting to 30,000 procedures annually[1]. CVS is offered 11–13 weeks, Amniocentesis from 15 weeks[1]. Type and timing of diagnostic test screening provided. Changes are predicted with adoption of combined first trimester screening for Down's Syndrome[1].

Methods Retrospective case-note audit of 200 consecutive prenatal diagnosis cases, performed by operators in Ormskirk District General Hospital, with 3200 deliveries per annum.

Results 200 procedures (25 CVS, 175 Amniocentesis) performed with continuous ultrasound, by 2 experienced operators, from August 2007 to November 2011. Rate of pregnancy loss following any procedure was 1.7% (3 cases of amniocentesis), and 0.6% loss <14 days of procedure (1 Amniocentesis). All miscarriages were <20 weeks gestation. 5 CVS and 1 Amniocentesis required 2 attempts. Bloodstaining complicated one procedure clinically, and 11 cases were recognised by the lab. 20% CVS and 2.9% of amniocentesis had inadequate sample volumes. Overall culture failure was 1%. 2 women reattended with vaginal discharge, 1 with abdominal pain. There was one liquor leak, and one case of sepsis

Conclusions Introduce continuous audit, with proforma for RCOG standards to be commenced at the procedure. Review results annually, use to inform patients, and develop the prenatal diagnosis service. Continue to train specialist registrars and sonographers, in a supportive environment for competency acquisition.

REFERENCE

1. RCOG. Amniocentesis and Chorionic Villus Sampling (Green-top 8). RCOG. 2010.

PF.71 WE HAVE DIAGNOSED VENTRICULOMEGALY – WHAT HAPPENS NEXT?

doi:10.1136/archdischild-2013-303966.079

L Lacey, P Satodia, H Mehta, S Mukherjee. *University Hospital Coventry & Warwickshire, Coventry, UK*

Ventriculomegaly is defined as dilatation ≥10 mm of the fetal cerebral lateral ventricles on ultrasound at 20 weeks gestation[1 2].

Aim To assess the aetiology and neurological outcomes of ventriculomegaly at a University hospital from 2009–2012.

Methods 35 women with ventriculomegaly were identified on anomaly/fetal medicine scans between 20 to 30 weeks of gestation. They were investigated for aneuploidy, infections and further abnormalities. Long term neurological outcomes including the differences between mild (10–12 mm), moderate (13–15 mm) and severe(≥16 mm) ventriculomegaly in unilateral/bilateral and stable/progressive cases were examined.

Results Ultrasound scanning data:

26 women were offered invasive testing for aneuploidy, it was contraindicated or not appropriate in 9 patients. 5 women accepted invasive testing, 12 declined and 9 are still considering. Karyotyping was normal in all 5 women. 31 women had a negative TORCH screen. 13 women had a fetal MRI scan.

Apgar scores were normal in all babies. 7 out of 18 babies with stable or progressive ventriculomegaly had abnormal cranial USS or MRI postnatally. All babies with mild ventriculomegaly at diagnosis have no developmental abnormalities currently. 2/7 babies with moderate ventriculomegaly and 1/2 babies with severe ventriculomegaly have delayed development.

Abstract PF.71 Table

				Subsequent scans showed		
No. of cases	Size (mm)	Bilateral	Unilateral	Progressive in size	Stable in size	Returned to normal size
17	10–12	9	8	4	6	7
7	13–15	5	2	2	4	1
2	≥16	2	0	2	0	0

(9 babies are undelivered)