



OBSTETRICAL ULTRASOUND FETAL HEAD AND NECK ANOMALY PROTOCOL

All exams will be accompanied by either a Detailed Anatomy (UOBC) or Follow up OB exam (OBF). See protocol and image requirements.

Copied from protocol website:

ABSENT CSP

- **Findings:** CSP not see on axial image, develops from front to back, hence the anterior part maybe seen, but posterior part may be absent, Colpocephaly – enlargement of the occipital portion of the lateral ventricle (AKA tear-drop sign), high riding third ventricle.
- **Associated findings:** Dandy Walker anomaly, lipoma or cyst in the midline in the falx, microcephaly. Can have other systemic anomalies like cardiac and GU anomalies. Chromosomal anomalies include trisomy 18, 8 and 13.

Ultrasound protocol:

Name	Scanning technique	Explanation
Axial head	Axial head through the thalamus and CSP	Presence or absence of CSP (make sure that this is a box like structure and not the medial walls of the ventricles).
Axial head - ventricles	Axial	Document colpocephaly if present
Cine head	Cine transverse	Documentation of colpocephaly and absent CSP
Cine head	Cine coronal	Coronal cine if possible - to document absent corpus callosum
Posterior fossa	Axial	Dandy-walker anomaly
Posterior fossa 3D	Axial	If Dandy-Walker present

DANDY WALKER ANOMALY

- **Findings:** complete or partial absence of vermis – giving rise to a key-hole appearance, enlarged cistern magna.
- **Associated findings:** hydrocephalus, absent CSP, cephaloceles, cleft lip and palate, polycystic kidneys, cardiac anomalies, chromosomal – T18, T13 and Turners.

Ultrasound protocol:

Name	Scanning technique	Explanation
Posterior fossa	axial	Demonstrate key-hole appearance (make sure that you are not very oblique, because that will give a false positive finding of key-hole)
Posterior fossa	Cine	
Posterior fossa	3D	Needed for sagittal reformat to demonstrate high riding tentorium and to measure the vermis in craniocaudal dimension
Other anomalies as outlined above		

AQUEDUCTAL STENOSIS

- **Findings:** ventriculomegaly – lateral and third
- **Associated findings:** X-linked hydrocephalus – adducted thumbs

Ultrasound protocol:

Name	Scanning technique	Explanation
Head images	Axial	Dilatation of the lateral ventricles
Head	Axial	Dilatation of third ventricle
Posterior fossa	Axial	Normal size of the fourth ventricle
Hands		Adducted thumbs
Hands	3D	Adducted thumbs
Gentalia	Axial	Male fetus can have x-linked hydrocephalus