

4789 : The Third Trimester Anomaly scan - a hunt for evolving structural fetal abnormalities.

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Introduction : The third trimester scan is not only crucial for detection of growth and Doppler abnormalities, but also for the detection of potentially evolving structural fetal abnormalities. Detection of abnormalities antenatally increases the preparedness of the clinician and the couple and to plan the deliver in appropriate centers to improve the long-term outcome for the baby, thereby reducing perinatal mortality and morbidity.

Objectives:

- To assess the extent of anomalies detected from 28 to 40 weeks and make a protocol of “mandatory planes” to be taken at the fetal well being scan.

Methodology:

- Retrospective study from a single tertiary fetal care centre from March 2005 to February 2023.
- Singleton pregnancies with structural abnormalities detected for the first time from 28 to 40 weeks were included.
- Abnormalities were categorized according to what gestational age they were first detected during the pregnancy.
- The GA groups were classified as 28 - 32 weeks, 33 - 36 weeks and beyond 37 weeks.

Inclusion criteria: Singletons with structural abnormalities detected for the first time in third trimester

Exclusion criteria: Multiple pregnancies and abnormalities previously diagnosed

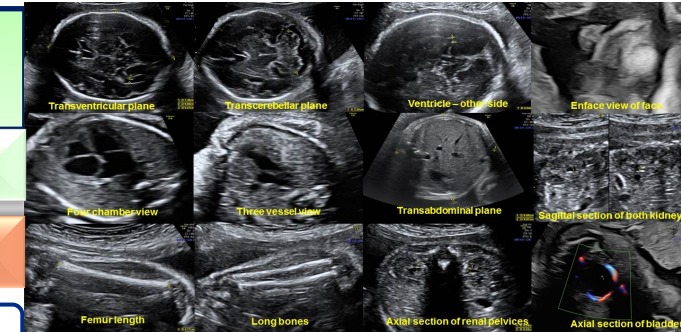


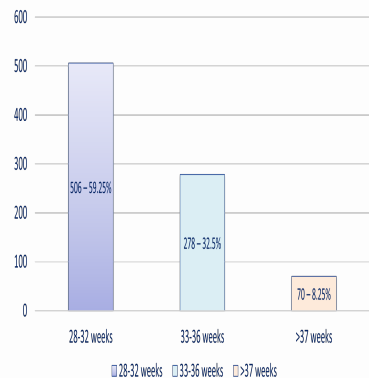
Fig.1 - Recommended planes to be included in third trimester anomaly scan

Most common anomaly in each major system

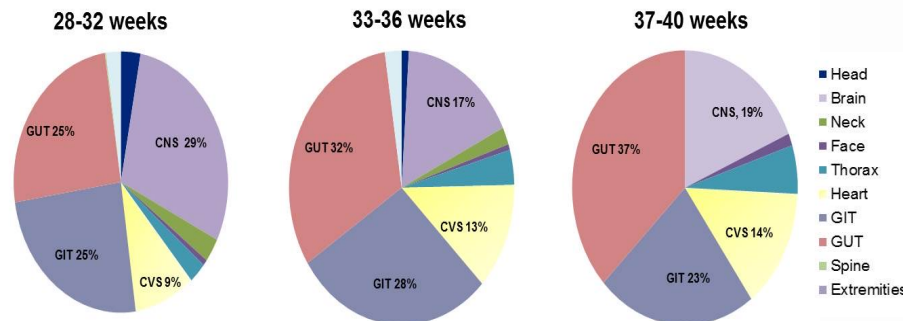
System	28 - 32 weeks	33 - 36 weeks	37-40 weeks
CNS	159	49	13
Ventriculomegaly	119 (MC)	30	7
Megacisterna magna	15	7	0
Cerebellar hypoplasia	11	3	1
GIT	134	83	16
Abdominal cyst	36	27	11
Umbilical vein varix	35	18	0
Prominent Bowel loop	28	22	2
GUT	136	93	26
Hydronephrosis	88	72 (MC)	25 (MC)
MCDK	13	4	0
Ectopic kidney	10	5	0
CVS	50	37	10
VSD	16	10	5
Coarctation of aorta	13	12	2

Results

Distribution of cases according to the GA



System wise distribution in various GA



1,143/27,946 (67.28%) showed abnormalities for the first time. 289/1,143 potentially detectable cases were excluded. 854/1,143 (74.7%) – Evolving fetal abnormalities (854/27,946 - 3% of entire cohort).

Reference: Value of routine ultrasound examination at 35–37 weeks' gestation in diagnosis of fetal abnormalities [A Ficara, A. Syngelaki, A. Hammami, R. Akolekar, K. H. Nicolaidis.](#)

Conclusions

- 3% of “evolving anomalies” presented for the 1st time in GA > 28weeks.
- 3T scan is crucial for detection of growth and Doppler abnormalities, and also for the detection of potentially evolving structural fetal abnormalities.
- 3T “fetal well being scan” must include appropriate planes for assessment of these anomalies.
- Detection of such abnormalities, its evaluation and subsequent management like selection of timing and place of delivery and postnatal investigations could potentially improve the postnatal outcome.

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