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First Trimester Screening Report

Amruta Yeralkar

Date of birth: 23 March 2000
Referring doctor: Dr. Kokare

Examination date: 13 September 2023
Patient id: 790

History

Ethnic origin: South Asian (Indian, Pakistani, Bangladeshi).
Parity: 0; Spontaneous deliveries between 16-30 weeks: 0.
Maternal weight: 75.0 kg; Height: 160.0 cm.
Smoking in this pregnancy: no; Diabetes Mellitus: no; Chronic hypertension: no; Systemic lupus erythematosus: no; Antiphospholipid syndrome: no.
Conception: ovulation induction without IVF; last period: 11 June 2023

EDD by dates: 17 March 2024

First Trimester Ultrasound

US system: Voluson E 10 (BT 20). View: good.
Gestational age: 12 weeks + 1 days from CRL

EDD by scan: 26 March 2024

Findings	alive fetus	
Fetal heart activity	visualised	
FHR	153 bpm	↔↔↔
Crown-rump length (CRL)	56.5 mm	↔↔↔
Nuchal translucency (NT)	1.57 mm	
Biparietal diameter (BPD)	20.2 mm	↔↔↔
Head circumference (HC)	69.0 mm	↔↔↔
Abdominal circumference (AC)	56.5 mm	↔↔↔
Femur length (FL)	6.3 mm	↔↔↔
Intracranial translucency	present, 1.6 mm	
Ductus Venosus PI	1.09	↔↔↔
Placenta	appears normal	
Amniotic fluid	normal	

Chromosomal markers:

Nasal bone: present; Tricuspid Doppler: normal.

Fetal anatomy:

Skull/brain: appears normal; Spine: appears normal; Heart: four chambers seen; Abdomen: appears normal; Stomach: visible; Bladder / Kidneys: visible; Hands: both visible; Feet: both visible.

Comments: BS:BSOB ratio - 0.67.

Uterine artery mean PI:	1.635	equivalent to 0.971 MoM
Mean Arterial Pressure:	110.000 mmHg	equivalent to 1.2468 MoM
Endocervical length:	35.0 mm	

Risk calculation

Patient counselled and consent given.

FMF Operator: Sonal Phadtare, FMF Id: 198408

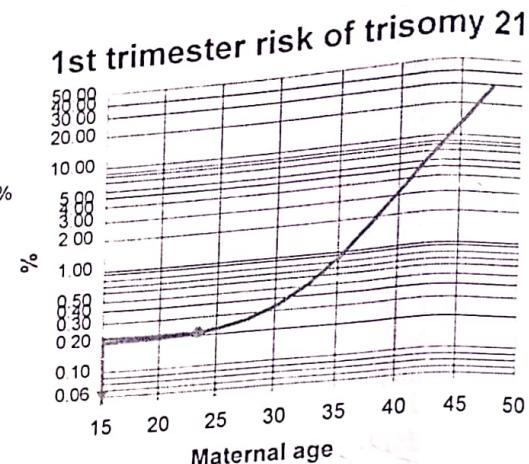
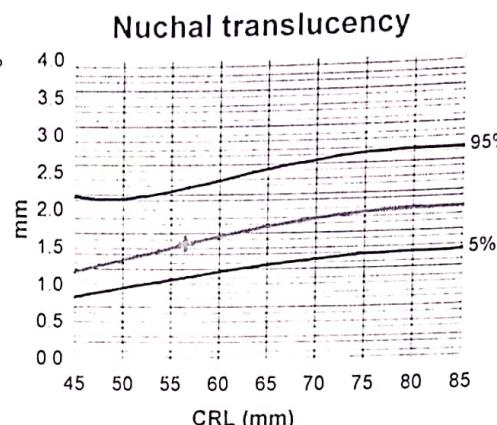
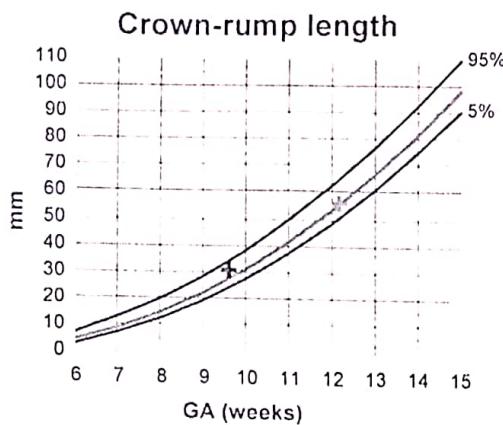
Condition	Background risk	Adjusted risk
Trisomy 21	1 in 1006	<1 in 20000

Preeclampsia before 37 weeks	1 in 28
Fetal growth restriction before 37 weeks	1 in 47
Spontaneous delivery before 34 weeks	1 in 209

The background risk for aneuploidies is based on maternal age (23 years). The adjusted risk is the risk at the time of screening, calculated on the basis of the background risk and ultrasound factors (fetal nuchal translucency thickness, nasal bone, tricuspid Doppler, fetal heart rate). Risks for preeclampsia and fetal growth restriction are based on maternal demographic characteristics, medical and obstetric history, mean arterial pressure (MAP) and uterine artery Doppler. The risk of spontaneous delivery before 34 weeks is based on maternal characteristics, obstetric history, and cervical length.

Biophysical marker medians used to calculate MoMs are corrected as necessary according to several maternal characteristics including racial origin, weight, height, smoking, method of conception and parity.

The estimated risk is calculated by the FMF-2018 software (version 4.4) and is based on findings from extensive research coordinated by the Fetal Medicine Foundation (UK Registered charity 1037116). The risk is only valid if the ultrasound scan was performed by a sonographer who has been accredited by the Fetal Medicine Foundation and has submitted results for regular audit (see www.fetalmedicine.org).



Doppler ultrasound

Uterine artery	1.680
PI left	1.590
PI right	1.635
Mean PI	
RI left	0.73
RI right	0.72
Notch	no notch
Ductus Venosus	
A-wave	positive
PIV	1.09

Cervical assessment

Cervical assessment	accepted
Cervix length	35.0 mm
Funnelling	no
Comment	normal cervical length

Conclusions

Diagnosis	No obvious fetal defects normal uterine artery Doppler and cervical length
Conclusion routine scan	adequate assessment
Recommendations	In view of suspicion of cardiac abnormality, I suggest early anomaly scan at 16 weeks to reassess fetal anatomy and cardia in particular (10th to 20th October)

Comments

Page 2 of 4 printed on 13 September 2023. Amruta Yeralkar examined on 13 September 2023.
Reporting on astraia software



There is single viable intrauterine pregnancy. The pregnancy has been redated from the CRL of today's scan and the corrected EDI is 26/03/2024.

The nuchal translucency measurements, nasal bone and fetal heart rate has reduced the maternal age related risk for chromosomal abnormalities from 1 in 1006 to less than 1 in 20000.

The nasal bone is present. The Tricuspid valve and Ductus venosus Doppler are normal.

The four chambers of the fetal cardia are well visualised. However, the 3VV could not be well visualised on scan today.

I have offered the option of early risk reassessment for aneuploidies (free bHCG, PAPP-A, PLGF and AFP), i.e. first trimester Quadruple marker test. This also assesses the risk for fetal Neural Tube Defects (NTDs), Fetal Growth Restrictions (FGR) and maternal pre-eclampsia (PE).

The risk for maternal PE is more than 1:100, scientific evidence based on large study (the ASPRE study) from the Fetal medicine Foundation, UK, has shown that, administration of Aspirin 150 mg to the mother at bedtime, would reduce the effects of PE for the mother by 50-80%.

The cervix measures 35 mm with no evidence of funneling. The uterine artery Doppler is normal for this gestation.

The detection rate for chromosomal abnormalities with various screening tests are as follows-

First trimester NT scan only- 75%

First trimester Combined (NT + maternal blood test)- 80-85%

First trimester Combined test with 1T Quad marker- early screening for aneuploidies + fetal NTDs + FGR + maternal PE- 90% detection rate

Sequential screening (Combined + 2nd trimester Quadruple at 15-19w + Genetic sonogram at 18-20w) - 95%

Maternal blood test for cell free fetal DNA- 99%

Invasive testing (CVS/Amniocentesis), which is the definitive test has a procedure related risk of miscarriage about 1:300.

After counselling, the couple decided against invasive testing.

Please note for all the future visits to ANY SCAN CENTRE, it is mandatory by the GOI to produce prior to the scan

1. Photocopy (xerox) of Government approved photo ID card of the prospective mother (Aadhaar card, passport, voter ID, driving licences etc)

2. Referral letter from your Doctor with indication for the scan with her/ his SEAL and SIGNATURE.

Also, please keep extra time to fill GOI mandated "F- Form" before the scan which needs to be submitted online prior to the scan.

Please note:

1. All anomalies cannot be ruled out on ultrasound due to technical limitations, maternal factors like amount of liquor, maternal habitus, previous scar, advanced gestational age etc. and fetal conditions like multiple pregnancies, fetal position, late appearance of few anomalies etc.

2. Absence of fetal anomalies on ultrasound scan does not absolutely rule out the possibility of having one.

3. The opinion reported is based on data generated by the computer, clinical correlation is required for deciding a treatment plan.

I Dr. Sonal Phadtare, declare that while conducting ultrasound/ image scanning on patient Mrs. Amruta Yeralkar, I have neither detected nor disclosed the sex of her fetus to anybody in any manner.

Recommendations In view of suspicion of cardiac abnormality, I suggest early anomaly scan at 16 weeks to reassess fetal anatomy and cardia in particular (10th to 20th October)

