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CMO Reg. No. RMEE 2445133
NABL Reg. No. MC-2491
Certificate No. MIS-2023-0218

Patient Name	: Ms.KHUSHBOO DEVI	Visit No	: CHA250042758
Age/Gender	: 23 Y/F	Registration ON	: 10/Mar/2025 09:30AM
Lab No	**: 10140053**	Sample Collected ON	: 10/Mar/2025 09:30AM
Referred By	: Dr.QMH	Sample Received ON	:
Refer Lab/Hosp	: CHARAK NA	Report Generated ON	: 10/Mar/2025 11:08AM

TARGETED IMAGING FOR FETAL ANOMALY (TIFFA)

- LMP is 31/10/2024 EGA by LMP is 18 weeks + 4 days.

- Single live intrauterine foetus is seen in variable lie with biometric measurement of: -

    - BOD 25 mm 16 weeks + 5 days
    - AC 130 mm 18 weeks + 4 days
    - HL 28 mm 19 weeks + 2 days
    - ULNA 25 mm 19 weeks + 1 days
    - RADIUS 22 mm 18 weeks + 2 days
    - FL 28 mm 18 weeks + 5 days
    - TIB 24 mm 18 weeks + 4 days
    - FIB 24 mm 18 weeks + 3 days
- Mean gestational age is 18 weeks + 2 days (+/- 2 weeks).
- EDD by CGA is approx. 19/08/2025 (on basis of present Sonographic age).

- Placenta is fundo-posterior wall. It shows grade-I maturity. No evidence of retro placental collection.

- Amniotic fluid is adequate. DVP measures 2.87cm.

- Cervical length appears normal.

Foetal morphological characters

- **Cranial vault is absent and cerebral hemisphere is not visualized. Bilateral orbits can be visualized (frog like faces) – S/O anencephaly-acrania complex.**

- Foetal lips are grossly normal.

- Foetal neck does not show any obvious mass lesion.

- Foetal spine appears normal in configuration. Cross sectional imaging shows normal trilaminar pattern. No evidence of mass / spina bifida is seen.

- Foetal chest shows normal heart lung ratio. Foetal heart shows normal position and ratio. 4 chamber foetal heart appears normal. No mass lesion is seen in chest. Bilateral diaphragms are normal. **EICF is seen in left ventricle.**

- Foetal abdomen shows normal position of foetal stomach. Liver appears normal in position. Gall bladder is anechoic in lumen. Visualized bowel loops are normal. No evidence of abnormal dilatation / mass is seen in bowel.

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- Foetal urinary bladder is moderately distended.
- Foetal both kidneys are normal in size, shape & echotexture. Both renal pelvises are normal.
- No evidence of dilated ureters is seen.
- Foetal umbilical cord is three vessels and shows normal insertion. No evidence of foetal abdominal wall defect is seen.
- Foetal limbs are normal. Bilateral femur, tibia and fibula, humerus and radius and ulna are normal in size.
- Bilateral foetal hands & foots are grossly normal.
- Foetal cardiac activity is regular, heart rate measuring 148/min.
- Foetal body and limb movements are well seen.

OPINION:

- **SINGLE LIVE FOETUS WITH MEAN GESTATION AGE OF 18 WEEKS + 3 DAYS (+/- 2 WEEKS).**
- **ANENCEPHALY-ACRANIA COMPLEX.**
- **EICF IN LEFT VENTRICLE.**

COUNSELLING

This fetus has acrania (anencephaly) and EICF in left ventricle. Anencephaly has prevalence of 1 in 1000 at 12 week's gestation. CNS or other defects are found in about 50% of cases, including spina bifida in 25%. Is is a lethal condition with death within the first week of life. There is recurrence of one previous affected sibling of 5%. The risk of recurrence can be reduced by 75 % by supplementation of FOLIC ACID 5mg/day for 3 months before and 2 months after conception.

EICF is a soft marker for chromosomal abnormalities especially trisomy 21. However it does not increase the risk over background risk. The apriori risk of trisomy 21 in this fetus is 1:1060(serum screening not done). This can further be modified by serum screening(quadruple test) which is advised to the patient. Quadruple test has sensitivity of around 70% for trisomy 21. Availability of screening test with >99% sensitivity for trisomy 21 ie NIPT has been explained to the couple. Amniocentesis remains to be the diagnostic test for aneuploidies. In absence of aneuploidies, EICF is a benign marker and does not adversely affect cardiac function.

Note:-- I **Dr. Atima Srivastava**, declare that while conducting ultrasound study of **Mrs. Khushboo Devi**, I have neither detected nor disclosed the sex of her foetus to any body in any manner. All congenital anomalies can't be excluded on ultrasound.

- **Dedicated fetal 2D-echo is not a part of routine structural anomaly scan.**
- **Chromosomal / Genetic disorders cannot be ruled out by ultrasound.**

[DR. ATIMA SRIVASTAVA]
[MBBS, DNB (OBSTETRICS AND GYNAECOLOGY)]
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NOTE :

- Ideal gestational age for TIFFA is between 18-20 weeks POG.

Limitations of USG -

- USG has potency of detecting structural malformations in up to 60-70% of cases depending on the organ involved.
- Functional abnormalities (behavior/ mind/hearing) in the fetus cannot be detected by USG.
- Fetal hand and foot digits are difficult to count due to variable positions.
- Conditions like trisomy 21 (Down syndrome) may have normal ultrasound findings in 60% cases as reporting in literature. Serum screening **(double marker at 11-14 weeks/quadruple or triple test at 15-20 weeks)** will help in detecting more number of cases **(70% by triple test/87% by quadruple and 90% by double test).**
- Few malformations develop late in intrauterine life and hence serial follow up scans are equaled to rule out their presence.
- Subtle anomalies/malformations do not manifest in intrauterine life and may be detected postnatally for the first time. Surgically correctable minor malformations (cleft/lip/palate/polydactyly) might be missed in USG.

Clinical correlation is necessary.

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Transcribed By: Purvi

*** End Of Report ***

CHARAK