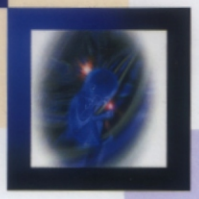

Prenatal Diagnosis

Chromosomal Analysis of Amniotic Fluid

While ultrasound is very helpful in routine pregnancy screening for fetal defects, prenatal diagnosis using **amniocentesis** is a powerful tool for **confirmed diagnosis** and a must for all indications listed below. It is the **safest** of all invasive prenatal procedures that not only rules out physical birth defects but also mental retardation and other developmental problems caused due to chromosomal defects which cannot be detected by ultrasound alone.

▶ What are the indications for amniocentesis?

Amniocentesis is normally performed for all pregnant women with: **History of child with birth defects** (multiple congenital anomalies, open neural tube defects, ambiguous genitalia, CHD/ASD/VSD, mental retardation, growth retardation, developmental problems, cleft lip and palate, dysmorphology) ❖ **Bad obstetric history or recurrent abortions** ❖ **Prolonged infertility** (history of menstrual disorders, oligospermia, azoospermia) ❖ **Conception by assisted reproductive techniques** (ICSI, IUI, IVF, GIFT).

Increased maternal age (32 years and above) ❖ **Abnormal ultrasound findings** (physical deformities, hydrops fetalis, cystic hygroma, polyhydramnios, renal agenesis, echogenic focus, fetal edema, fetal ascites, IUGR, IUD) ❖ **Abnormal results of routine AFP or triple screen test** ❖ **Consanguinity** ❖ **Exposure to drugs, radiation** and other environmental factors ❖ **Parental chromosomal abnormalities** ❖ **Family history of genetic disorders and cancers** are also strong indications for amniocentesis.

▶ How and when is the fluid collected?

It is a common misconception that amniocentesis is risky for the pregnancy. In reality, amniocentesis is a **safe and simple** procedure. It is done with **ultrasound guidance** under aseptic conditions. The procedure is usually transabdominal and is done at 15-17 weeks of gestation (standard amniocentesis). It can also be done at 12-14 weeks (early amniocentesis), above 18 weeks (late amniocentesis). It is also performed just before medical termination of pregnancy. A volume of **10-30 ml** of amniotic fluid is collected in sterile centrifuge tubes with no additives and is transported to GeneTech within **24 to 48 hours** at room temperature.

▶ GeneTech, the best prenatal lab in the country

GeneTech is the only lab in the country with **the state-of-the-art facilities and expertise** required to provide accurate and reliable reports. Genetech's **standard operating protocols** ensure 100% success rate and rapid growth for all cultures, and can also handle maternal blood contamination in amniotic fluid with ease. Multiple cultures, sterile setup, blind scoring, multiple scorers and international standards are a part of the ongoing **quality program** at GeneTech.

Our **unmatched prenatal report** includes a karyotype picture produced with high-end image enhancement and analysis systems, mosaicism details, **expert interpretation of the results with correlation to patient condition** along with supporting literature. The report is delivered within 2 weeks (the **shortest turn around time** for prenatal samples in the country).

▶ What if the report is abnormal?

Termination of the pregnancy is not always the only option for an abnormal chromosomal report. GeneTech provides exhaustive information about the abnormality along with the report, like information about other such cases published world-wide and prognosis to enable easy management of the condition during pregnancy, at birth and beyond. **Genetic counseling** is offered at **pre-test** and **post-test** stage to discuss **risk and prognosis** both with patient and the physician.

The Process

Amniocentesis (15 mins)

Rapid Amniocyte Culture (10 days)

Harvesting (1 day)

G banding (1 day)

Screening

Image Analysis (1 day)

GeneTech report

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