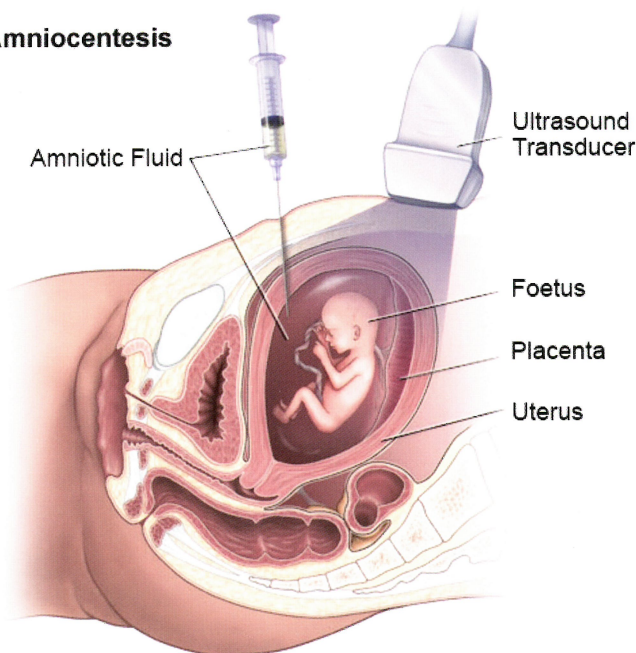


The **NON-INVASIVE PRENATAL TEST (NIPT)** is a totally new and highly predictive test to screen for Down syndrome. It involves only a blood test from an expectant woman, hence there is no procedural risk to the mother or foetus at all. The test analyses short segments of foetal genetic material that are naturally floating around in the maternal blood and can be done from the 10th week of pregnancy onwards.

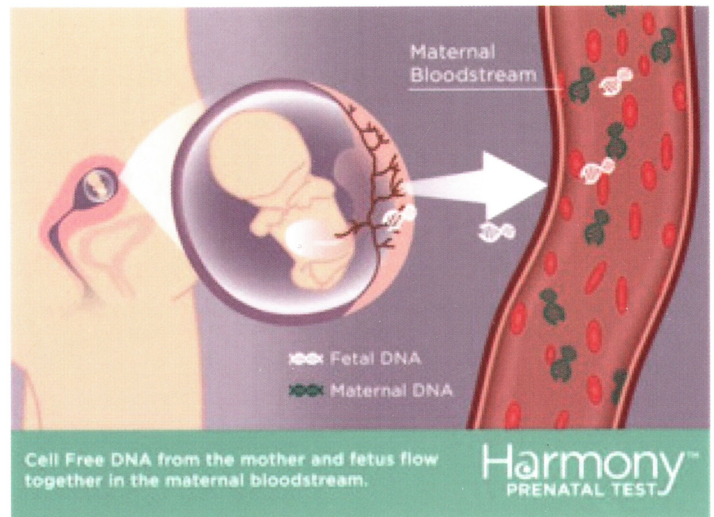
The Harmony Prenatal Test is one such test. The best part of this test is its high accuracy of 99% in detecting Down syndrome. Furthermore, the false positive rate is < 1% (i.e. less than 1% of foetuses deemed high risk by this test are actually normal). This compares favourably with that of older prenatal screening tests whose accuracy is 90% and a false positive rate of 5%.

The American College of Obstetricians & Gynaecologists supports the use of NIPT in clinical practice stating that this appears to be the most effective screening test for aneuploidy in high risk women*.

Amniocentesis



*High risk women include maternal age 35 years or older at delivery, foetal ultrasound findings indicating increased risk of aneuploidy, history of a prior pregnancy with trisomy, positive test result for aneuploidy from other prenatal screening, parental balanced Robertsonian translocation with increased risk of foetal trisomy 21 or 13.



Despite the Harmony Prenatal Test being a highly accurate screening test for Down syndrome, there are certain limitations of the test that one must be aware.

- Firstly, the Harmony Prenatal Test is a screening test for trisomy 21, 18 & 13 (i.e. extra chromosome numbers 21, 18, 13 in the foetus). Even though the Harmony Prenatal Test is highly predictive, confirmation of screen positive patients through CVS or amniocentesis is necessary.
- Secondly, it does not test for all chromosomal anomalies and single-gene disorders.
- Thirdly, discordant results between the Harmony Prenatal Test & amniocentesis or CVS result can occur.
- Cost of NIPT differs in different Centres varies, ranging from about S\$2000-3000.

In **CONCLUSION**, the Harmony Prenatal Test is a new and accurate non-invasive prenatal test to screen for trisomy 21 (Down syndrome), trisomy 18 (Edwards syndrome) and trisomy 13 (Patau syndrome). It is recommended for high risk women who do not wish to go for an invasive diagnostic test due to the inherent risk involved in these tests. Other similar tests, e.g: MaterniT21 PLUS, are available as well. However, there are still limitations to it as stated above. **bt**



Dr Lee Lih Charn
MBBS, M.Med (O&G), FAMS

L C Lee Urogynae Centre
339 Thomson Road #06-05B
Thomson Medical Centre
Singapore 307677
Tel: 6259 2361/2
Fax: 6259 2357
www.lcleeuogynae.com