Should you Test Embryos created after IVF if You had Recurrent Miscarriage?

PGD Recurrent Miscarriage

1. *Early pregnancy loss approximately* < 10 weeks, mainly due to chromosomal abnormalities of the embryo and

2. *Late pregnancy loss* ≥ 10 weeks due to structural uterine abnormalities, hormonal factors, blood clotting abnormalities, immunological factors and chromosomal abnormalities of the embryos (less likely than early loss).

Women with history of recurrent miscarriages should be tested for all these factors before a fertility treatment plan is finalized.

Factors that point to chromosomal abnormalities as a cause for recurrent miscarriage

i. Advanced maternal age,

ii. Diminished ovarian reserve (e.g high FSH, low AMH),

iii. Early pregnancy loss before a fetal heart activity is detected (chemical pregnancy, blighted ovum),

iv. Abnormal chromosomes of the products of conception and

v. Abnormal chromosome configuration of male or female partner e.g chromosome translocation. Less than 5% of couples miscarry due to a translocation in the male or female partner.

Structural abnormalities of the uterus are detected using
saline sonography, hysteroscopy or MRI scan. Blood tests can detect hormonal abnormalities, clotting abnormalities and immunological factors.

Should you Test Embryos created after IVF if You had Recurrent Miscarriage? (if chromosomal abnormalities of the embryos are suspected)

Factors to consider before deciding to test embryos:

I. Embryos should probably be tested in women or men that carry abnormal chromosome configuration e.g. translocation as they produce higher proportion of abnormal embryos than parents of the same age.

II. Embryos should be tested if avoiding another miscarriage is a priority, especially if prior miscarriages took place later in the first trimester and required surgery. Repeated scrapping of the uterus can damage the lining that may be difficult to treat (Asherman syndrome).

III. There is no prove that PGD for chromosomes will improve the chance for conceiving a normal child. PGD will only detect what you have and is not a therapeutic procedure. The decision for embryo testing using PGD should be individualized for all other parents. Older women may not have any normal embryos to transfer after testing. Although testing may avoid a pregnancy with an abnormal embryo that implant and survive >10 weeks, the majority of abnormal embryos do not implant or are miscarried extremely early.

Just because it is available, sounds plausible and you have the means to do it, does not mean you should test your embryos prior to IVF.