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AGE & FERTILITY RELATED ISSUES

FERTILITY IS AGEIST

Age is the single most important factor affecting fertility and chance of having a child. Many studies have shown that women are delaying child bearing due to:-

- 1. Education and career pursuit.*
- 2. Ability to establish oneself in relation to employment and housing.*
- 3. General economic uncertainty.*

Female age and fertility: Couples underestimate the impact of age on fertility and their ability to conceive. The fact remains that a woman is born with all the eggs she will ever have & as the age advances her eggs diminish in quantity & quality, i.e. at birth 2 million oocytes, at puberty 0.3 - 0.5 million and 25000 oocytes at the age of 37 years. Out of these, only 400 are destined to ovulate & at menopause around 1000 eggs remain in the ovary. The monthly fecundity resulting in live birth rate among women aged 30, 35 & 40 years is 17%, 12% & 5% respectively because of continual oocyte atresia. With advancing age both fertility and sexual activity decreases hence, it is difficult to separate out the effect of sexual behavior from age. As the age increases, the risk of other disorders that may adversely affect fertility like fibroids, tubal disease and endometriosis also increase.



Male age & fertility: Recent studies have concluded that not only maternal age is important, paternal age is also a risk factor for infertility. The falling androgen levels, decreasing sexual activity, alteration in sperm motility, morphology and deterioration in sperm quality & DNA integrity are the aetiological factors responsible for decreasing fertility with increasing age. Also the time to conception increase. It is also associated with increased risk for spontaneous abortion & many diseases like schizophrenia, trisomy 21 etc.

How does egg quality affect fertility & IVF

Maternal age is the single most important prognostic factor for ART success. The live birth rate per fresh IVF cycle was 41.5% in women younger than 35 years, whereas it is 31.9% in women aged 35 – 37 years, 22.1% in women aged 38 – 40 years, 12.4 % in women aged 41 - 42 years, 5% in 43 – 44 years & 1% for women above 44 years older. The quality of the egg is most critical factor involved in determining the quality of the embryo. With IVF treatment we hope to have multiple embryos so that we can choose the best ones for transfer, still the prevalence of aneuploidy is high in women with advanced maternal age.

The **risk of miscarriage** progressively increases from 11.4% for women aged 33 – 34 years to 13.7% for 35 - 37 years, 19.8 % for women 38 – 40 years, 29.9% for 41 – 42 years and 36.6% for women older than 42 years.

Donor Eggs: Successful pregnancy outcome is very much related to female age. When using eggs from

young donor, the age of the egg donor is the important issue. At Akanksha IVF Centre 51% of embryo transfers using Donor Eggs resulted in live - birth regardless of the age of recipient. With egg donation the age of the recipient women has little impact on the chance of successful pregnancy. Thus the age of the egg is very important and the age of uterus is not.

Risks associated with pregnancy in women aged 35 years or older:

Pregnant women aged 35 - 40years have an increased risk of gestational diabetes, placenta previa breech presentation, operative vaginal delivery, cesarean section, post partum hemorrhage, preterm birth, low - birth weight babies and still - birth. Women > 40 years has higher rate of these complications.

Treatment options: Education and enhanced awareness of impact of age on fertility is essential in counseling patients. The importance of anticipated age related decline in fertility, the increased incidence of disorders that impair fertility and increased risk of pregnancy loss should be emphasized. Women older than 35 years should receive an expedited evaluation and undergo treatment after 6 months of failed attempts to conceive.

Women over 38years of age should have aggressive fertility treatments & proceed to IVF sooner before their fertility potential is lost.

Age limits for IVF- Akanksha IVF Center has an upper age limit of 44 years for taking up a woman for IVF with her own eggs. Donor Eggs are commonly used for women between 45-49years of age.