

Aneuploidy and Y chromosome microdeletion screening in infertile men using semen

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Abstract

Infertility has been defined by World Health Organization (WHO 2010) as inability of couples to conceive naturally after at least one year of unprotected intercourse. Male factors are contributing equally among couples being assessed and treated for infertility using advanced Assisted Reproductive Technology (ART). Genetic abnormalities, including sex chromosome aneuploidy in the blood and sperm nuclei as well as structural aberrations of Y chromosomes, are depicted as the major causes of male infertility. The current study was aimed to assess the sperm chromosome aneuploidy screening and semen DNA analysis for the diagnostics and therapeutics of ART and compare with the blood DNA. The DNA isolated from the semen and as well peripheral blood sample were analyzed for the microdeletion screening of Y, AZFC loci (sY254 and sY255). The sperm nuclei aneuploidy for chromosome X and Y was analyzed using the sperm-FISH technique. The microdeletion of chromosome Y with AZFc region loci specific for sY254 and sY255 showed deletion up in the semen DNA sample when compared with that of the DNA from blood samples. The sperm nuclei aneuploidy using sperm-FISH technique using fluorescent probes displayed a percentage of 48.92% and 51.18% of X and Y bearing chromosomes. The Yq microdeletion screening from germ cells along with sperm nuclei aneuploid screening is important to understand the genetic basis of infertility, to provide comprehensive counseling and most adapted therapeutics in the field of assisted reproductive technology



the Research Person at Sri Ramachandra University, India and was awarded with Young Scientist award of the year 2017..

Speaker Publications:

1. Dimethyl 1-(3-hydroxy-2-iodo-1-phenyl-prop-yl)-1H-1,2,3-triazole-4,5-dicarboxyl-ate” Acta Crystallographica Section E Structure Reports Online 68(Pt 5):01559 DOI: 10.1107/S1600536812018193
2. Pregnancy outcome in fresh and frozen embryo transfer in women with high estradiol levels

[2nd International Conference on Women’s Health, Reproduction and Fertility](#) - Dubai, UAE- March 16-17, 2020.

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Biography:

Archana Siva Subarmanian has completed her Master’s in Clinical Embryology from JSS University Mysore and worked as an Embryologist in Gunasheela Maternity Hospital and IVF Centre Bangalore and ARC International Fertility Centre. She is