

## **GENETIC ANALYSIS OF INFERTILE MALES FROM BANGALORE**

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Approximately 13-18% couples of child bearing age are infertile. Male infertility accounts for approximately half of it. Male infertility is known to have a genetic basis in many cases. Several studies have been performed on the cytogenetic and molecular basis of male infertility in patients from the western populations. Recently, four groups from India have independently reported molecular basis of male infertility in cases from Kolkata, Delhi, Hyderabad and Varanasi. However, there is no report on the genetic basis of male infertility in patients from Bangalore. To this end, we have begun to ascertain cases with male infertility from Bangalore. We have ascertained so far a total of 53 cases with male infertility from Bangalore. These cases were either azoospermic or oligospermic. The G-banding chromosome analysis showed a normal male karyotype in all except one case. The karyotype of one infertile patient was 47,XYY. PCR-based microdeletion analysis of the Y-chromosome using a battery of 29 primer sets from AZF regions (viz. sY746, sY740, sY86, sY2320, sY741, sY84, DFFRY, sY742, sY615 and sY743 from AZFa region; sY98, sY100, sY110, sY80, sY113, sY118, sY124, sY127, sY1211, sY134 and sY143 from AZFb region; sY153, sY148, sY156, sY255, sY254 and sY158 from AZFc region; and, SRY from the p-arm and sY160 from the heterochromatic region) showed deletions in four patients (4/53; 7.5%) in the AZFc region only. Interestingly, patients from other regions of India have shown deletions in all three AZF regions. This suggests a regional variation in the deletions of AZF regions in Indian male infertile patients. The sizes of the deletions were variable in these patients. Deleted segment in only one patient extended to the heterochromatic region of the Y-chromosome. (The financial assistance from the ICMR, New Delhi is gratefully acknowledged).