

Chapter 8

Establishing a National Database for Human Infertility

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It is important to realize that diagnostic and therapeutic approaches in reproductive medicine have to keep pace with rapidly developing molecular knowledge of human reproduction. It is now possible to detect the incidence of chromosomal abnormalities using a variety of high-powered PCR techniques (Human Reproduction 13: 3032-3038, 1998.) and multicolour fluorescent *in situ* hybridization (FISH) analysis (Chromosome 6:481-486,1998; Human Reproduction 16:115-120,2001). FISH studies on sperm are becoming necessary to understand whether there is a genetic cause for male infertility, before patients can be subjected to ICSI. New spermatogenesis genes are bound to be discovered (Endocrinological Investigations 23: 584-591, 2000); testing their mutation will become easier with DNA chips and microarray technology.

Unfortunately, there is no documented database available in our country that would cover data on all aspects of infertility, and there is an urgent need for the same. It is worrisome to see that, with the primary aim of providing a child to the infertile couple, a variety of sophisticated ART are being used to overcome male factor infertility without understanding the underlying cellular and molecular etiology. In the process of curing infertility in the patient, there is a high iatrogenic risk of transmitting an abnormal paternal geno-(pheno-)type to the ART-born child. An appropriate database would allow the quantification of such risks.