



ICSI; facts, fallacies and the future

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Parents who conceive children after fertility treatments would like to know if these children will be at excess health risks relative to those naturally conceived. They would like studies to be performed to monitor outcome (but not necessarily on their own children). Since the birth of the first IVF child there have been a number of studies performed to investigate their wellbeing. However many of these early studies were small, uncontrolled and had other methodological errors.

Few reports have been published on the follow-up of children born after intracytoplasmic sperm injection. These generally present reassuring data but most lack the methodology for definitive conclusions about the physical and psychological development of children conceived with this technique.

Paediatric follow-up studies are difficult to organise, especially when choosing a well-matched control group. There are ethical problems with singularising these children by enrolling them into specific medical and psychological studies. Studies are troubled by unstandardised tools, multiple observers, poor matching criteria, poor follow-up rates, and insufficient power for the outcome measures, absence or inappropriate control group and insensitive tools of assessment.

Malformation studies on these children have produced conflicting results so far. A birth registry study needs to be established. Other issues such as an adverse effect on genomic imprinting and the fertility of these children as adults have yet to be addressed. Overall the wellbeing of these children so far is satisfactory. Continuing follow-up needs to be performed in countries performing ICSI.

Children born after IVF are 1% of the child population now in developed countries (an increasing proportion of which are ICSI conceived.) Ultimately when this first generation of IVF children grow up, they will become a significant subgroup of the population. Such children will have a very different view of the justification for exposing them to any excess risks, especially if they realise safety considerations were not a priority for those who had helped their parents conceive them.

Key words: children, follow-up, and ICSI

