Letters to the Editor

On the benefit of assisted reproduction techniques, a comparison of the USA and Europe

Sir,

Gleicher et al. (2006), in their US versus Europe assisted reproduction techniques (ART) comparison of outcome data, find that large differences exist between the two. We recognize the importance of such comparison and analysis, which has the potential of defining the best approaches from different countries and regions, and if combined, this could help to improve the benefit of ART for the infertile population.

The authors conclude that the lower pregnancy and delivery rates reported for Europe means that the ways ART is regulated and conducted in Europe 'do not appear to benefit the European population'. We do not necessarily agree with that conclusion, although efficacy, as reported, certainly appears to be higher in the USA. There are several reasons for our disagreement.

Our main criticism towards the conclusions is that Gleicher et al. (2006) mention benefit rather than efficacy. They note, however, that in Europe the cost is lower, the insurance coverage is higher, the number of cycles per million population is twice as high and, most importantly, that the multiple pregnancy rates both for twins and high-order multiples are much lower, leading, of course, to much lower neo- and post-natal care costs. First, our conclusion therefore is that although it seems that the efficacy is higher in the USA, the benefit may not be.

Second, many factors may bias their conclusion. One of them is that Europe is far from homogenous. The European IVF monitoring (EIM) does pool data but also provide individual country information, and country to country comparisons may be more informative that pooling data from all of Europe. When pooled, however, the removal of several large countries like France from the comparison, because of the lack of specific data may be more misleading than the opposite.

Third, important differences in clinical policies are not appropriately considered in their analysis of possible reasons for the differences in efficacy, for example, differences in patient selection (other than age), aggressiveness of stimulation (which may be different) and in cancellation rates (which is reported to be higher in the USA). Also, fetal reduction policies may differ.

Fourth, although not yet available in either the USA or Europe, the best efficacy parameter to use may be the cumulative pregnancy rates per egg retrieval, adding up pregnancies after fresh and frozen and thawed transfers. The reason why this may be important in the comparison is that the transition towards transfer of less embryos has been more rapid in at least parts of Europe, one of the consequences being that more frozen cycles are reported from those countries.

Because of the existence of all such biases, the author’s main explanation that ‘these differences appear primarily driven by greatly diverging regulatory environments’ where Europe has ‘chosen a more regulatory route’ is only partly appropriate, although we do recognize that inappropriate legislation does impair the efficacy in some European countries, like in Italy.

Gleicher et al. (2006) first state that the US data ‘lend credence to the argument that the higher US pregnancy rates may be the consequence of larger embryo transfer numbers’. However, later in the text, after further analysing their own data, they say that ‘this study strongly suggest that the large number of embryos transferred in the USA may, at most, be responsible for only a small part of the outcome difference in pregnancy rates between the continents’.

That conclusion should be a good argument for a transition of clinical practice towards transfer of one to two embryos.

Although no firm conclusions on the reasons behind differences between countries and regions in the practice of ART and the outcome can yet be drawn, we must continue to report outcomes, but in more sophisticated and synchronized ways, to make comparison possible and more meaningful. ART professionals in Europe should scrutinize ART programmes in the USA to learn whether some clinical and laboratory routines may be better performed. Additionally, US professionals should reduce the number of embryos they transfer.

Reference


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