Reproductive BioMedicine Online (2011) 23, 399–400

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EDITORIAL

Who should control how many embryos to transfer: the state or the patient?

An interesting debate is conducted in this issue of *Reproductive BioMedicine Online* on the subject of how many embryos it is safe and proper to place in a uterus, and how best to regulate this decision — if at all. It is a dilemma faced by all patients anxiously caught between no pregnancy at all or facing the prospect of twins or triplets. In this difficult place it is often all too easy to think that the latter option must be the best. But is it?

The debate is sparked by a paper from Bissonnette et al. (2011) which describes the impact on the rates of multiple births and pregnancy of the implementation of new legislation in Quebec, Canada. This legislation was introduced in August 2010 in conjunction with state finance for assisted reproduction treatments. The aim was to reduce multiple pregnancies, described as 'the major negative side effect of ART', by controlling the number of embryos that could be transferred in any one cycle.

In the first three months of this programme, 1353 cycles of IVF were performed in the five Quebec-based assisted reproduction centres. Elective single embryo transfers accounted for 50% of transfers compared with only 1.6% prior to legislation. The effect of this was to reduce the overall clinical pregnancy rate from 42.8% to 31.6% per transfer — for the first time describing a diminishment of overall pregnancy results. Such an outcome is not perhaps unexpected, since embryologists cannot always predict the health of the embryos being transferred. In contrast, some previous reports have claimed that pregnancy rate is not affected (or only marginally so) when embryo numbers are reduced — perhaps a less likely general outcome? However, in Quebec the multiple pregnancy rate was reduced from 25.6% to only 3.7%. It is suggested that having state-financed assisted reproduction created an environment in which the more aggressive use of single embryo transfer became possible, patients being prepared to risk a failure first time round, because the subsequent use of frozen embryos and/or a second cycle of treatment was still affordable. The authors say: 'it is logical to use the cumulative pregnancy rate or cumulative live-birth rate per initiated cycle, combining results from transfer of fresh and frozen embryos, as the standard measure of a patient's chances for a baby.'

However, this paper then provoked a responding commentary by Gleicher (2011) of Yale and New York, who attacks both the rationale and the ethics of the Quebec approach. First, he agrees that triplet pregnancies are a high risk to both mother and offspring. But then he goes on to claim that both the risk to mother and babies, as a well as the overall costs to the health system, of two serial singleton pregnancies are as great as, if not greater than, those of a twin pregnancy, implying that the gains of single embryo transfer are at best illusionary. Second, Gleicher objects to the intrusion of Government into healthcare decisions on the grounds that this interferes with a patient's right to self-determination or 'to choose'. Indeed, Gleicher vociferously advocates the USA free-market model over the European-style sympathy for Government intervention in healthcare, his hope being 'to keep government out of medicine'. How representative Gleicher is of American doctors is uncertain.

This blast of free marketry is countered, appropriately from Europe, in a detailed response from Khalaf, Bewley and Braude (2011) of Guy's and Thomas' Hospital, London, who claim that practice should be based on solid data rather than personal judgment. They set the right of patient self-determination against a doctor's ethical duty to practice in the best interests of the patient, and not to acquiesce passively to requests known to be risky, stressing that the risks from twin pregnancies are real and borne by women and children, not their doctors. They end by suggesting that Government legislation, responsibly applied, as described by Bissonette et al. (2011) can and should be an aid to clinical leadership in joint decision-making with patients, and is demonstrably in the interests of the health of the patients and their children-to-be. 'Yes we can!' they claim — implicitly aligning themselves with Obama in his political health tussle with Congress.

1472-6483/$ - see front matter
doi:10.1016/j.rbmo.2011.06.012

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