COMMENTARY

Multiple pregnancy, fetal reduction and selective termination

Caroline Mackie Ogilvie

Guy’s and St Thomas’ NHS Foundation Trust, London SE1 9RT, UK
E-mail address: Caroline.Ogilvie@genetics.kcl.ac.uk

Abstract The avoidance of twin or higher-order multiple pregnancies is in the best interest of families, medical practitioners and health services, given the health hazards and costs associated with higher-order multiples. This commentary explores the background to and ideas in the paper by Legendre et al. (2013), which makes the case for separate consideration of the various issues around selective termination of a multiple pregnancy and fetal reduction. The exploration does so mainly within the context of UK law and practice, but has international relevance. The responsibilities of health professionals for putting many of these women in the difficult position of having to make a decision about selective termination or fetal reduction is critically reviewed. The imperative must be for health professionals to reduce the need for women to have to make these difficult choices. In these circumstances, I argue that the differences in motivation and emotional burden between the two situations may be less clear cut, and are less salient, in practice than Legendre et al. conclude from their theoretical approach to the issues.

The paper by Legendre et al. in this issue of Reproductive BioMedicine Online (Legendre et al., 2013) discusses and dissects various issues around selective termination of a multiple pregnancy (defined by the authors as termination of a fetus affected by a serious medical condition such as Down’s syndrome) and fetal reduction (defined as the termination of healthy fetuses in multiple pregnancies), and makes a strong case for separate consideration of these two procedures. The arguments around the ethical difficulties of each scenario are given thoughtful consideration. The authors feel that there should be clear distinction between selective termination and fetal reduction, both because of the practical and emotional differences, and also because of the motivation involved in the decision to proceed in either case.

Screening and subsequent invasive testing for Down’s syndrome (and other viable chromosome aneuploidies) is offered to all pregnant women by the UK National Health Service, signalling society’s acceptance of women’s right to choose whether or not to bear the burden of a handicapped child or a child with serious health problems. In the context of a multiple pregnancy where one fetus is affected, although the choice may seem similarly straightforward, the decision as to whether to proceed with the selective termination must be complicated by the concomitant risk to the surviving fetus(es). Similar dilemmas are presented to the woman considering fetal reduction; for higher-order multiple pregnancies, the decision to proceed must be motivated by the serious health consequences for all the fetuses (and also possibly the mother) without intervention. There are therefore overlapping difficulties in choice and motivation between selective termination and fetal reduction. These dilemmas are reminiscent of the well-known ‘tram driver’ philosophical conundrum (Foot, 1978), and although utilitarians would approve sacrifice for the greater good, these moral judgements are largely considered to be a matter for individual choice. Indeed, there are several examples of women choosing to proceed...
with higher-order pregnancies, sometimes with successful results, most notably two sets of live-born octuplets, one in 1998 and one in 2009. At the other end of the spectrum, some women choose to reduce a twin pregnancy to a singleton; Legendre et al. imply that some of these procedures are chosen ‘for convenience’. However, now that health risks to twins are more widely understood, it may very well be that this is not the case. Although the decision to terminate a healthy fetus in these circumstances may seem difficult and distasteful to many people, termination of singleton pregnancy is legal and widely accessed in many countries, including the UK (provided certain fairly flexible conditions are met), and it is therefore difficult to argue against reduction of a twin pregnancy to a singleton especially as it may be done with the motive of maximizing the health potential of the surviving twin.

The need for fetal reduction is, by definition, a consequence of multiple pregnancies, the majority of which follow assisted reproduction interventions; professionals involved in assisted conception must therefore bear a great deal of the responsibility for these difficult situations. The UK Office of National Statistics recently published their latest figures on pregnancies and their outcomes (Office for National Statistics, 2013). These figures show that between 2006 and 2010, there was a rise in the number of multiple pregnancies and a concomitant rise in the number of fetal reductions. At the same time, the Human Fertilisation and Embryology Authority (HFEA) reported that the percentage of multiple pregnancies following fertility treatment dropped from 26.6% in 2008 to 20.1% in 2010. One explanation for these apparently contradictory figures is that the number of IVF pregnancies has risen considerably over this period, such that even with a lower multiple pregnancy rate following IVF, the overall multiple pregnancy rate has risen. However, the HFEA does not monitor or regulate other assisted conception procedures such as the administration of clomiphene, and the unregulated use of these other procedures may also be contributing to the increase in the rate of multiple pregnancies. Indeed, the HFEA reported that only one-third of fetal reductions were carried out for IVF pregnancies (Kay, 2012). Fortunately, the incidence of fetal reduction remains relatively low, with various studies quoted in the Legendre paper giving figures of between 15 and 191 procedures per annum at different centres and with the latest UK figure being 85 procedures in total in 2010. As there are thousands of multiple births each year (over 10,000 in the UK in 2011), the overwhelming majority of women choose to face the health risks for their offspring rather than opt for fetal reduction.

The avoidance of twin or higher-order multiple pregnancies must unarguably be in the best interest of families, medical practitioners and health services. The health hazards associated with higher-order multiples are incontrovertible; however, even for twin pregnancies, there are considerable health risks for the resulting babies (Guzoglu et al., 2013; Practice Committee of the Society for Assisted Reproductive Technology and Practice Committee of the American Society for Reproductive Medicine, 2012). In 2007, the HFEA set a maximum multiple birth rate which clinics are expected to aim for, usually by implementing an elective single-embryo transfer protocol for appropriate couples (Braude, 2006); this recommendation was informed by studies showing that pregnancy rates per embryo transfer were no higher with the transfer of more than one embryo (Templeton and Morris, 1998; Vilska et al., 1999). The recent HFEA figures show that this policy has had some effect. Similarly, the American Society for Reproductive Medicine has reviewed the worldwide application of single-embryo transfer protocols and reports that this has resulted in a reduction in multiple pregnancies, although the USA at the time of the report was lagging behind other countries in implementing this (Practice Committee of the Society for Assisted Reproductive Technology and Practice Committee of the American Society for Reproductive Medicine, 2012). Indeed, in some countries, legislation has been brought in to make transfer of more than one embryo illegal. However, there are those that argue that single-embryo transfer is discriminatory (Gleicher, 2013; Starr, 2009) in requiring women potentially to reduce their chances of pregnancy in any single cycle, with the inconvenience of returning for further cycles, the increased time to achieve pregnancy and the extra expense. This may be particularly burdensome when patients are paying for their treatment; many self-funding patients insist on the transfer of more than one embryo and willingly accept the risk of a multiple pregnancy, even when the possible health outcomes are explained to them. In the absence of legislation, the position of assisted conception units may be difficult: because the embryos are the legal property of the couple, how far can the unit go in pressuring the couple to have only one transferred? In the case of a state-funded health service, the public purse will likely be required to pay for any fetal reduction or the health requirements of the resulting babies.

So, despite the encouraging trend in the UK in recent years to fewer multiple births following IVF, largely as a result of the HFEA’s ruling, more could be done to reduce the incidence. For instance, recent reports have shown that transfer of vitrified embryos give similar pregnancy rates to transfer of fresh embryos (Feng et al., 2012; Ku et al., 2012). The time has come for IVF clinics to consider costing their cycles to include vitrification of all suitable embryos followed by their serial transfer until pregnancy is achieved; women could then be confident that all their embryos could be available for transfer without compromising the chances of success and without added expense for each cryopreserved embryo transfer, and the motivation for multiple embryo transfer would be reduced. Reporting and audit of pregnancy rates would then need to change from pregnancies (or live births) per embryo transfer to pregnancies (or live births) per stimulation cycle, in order to reflect this approach.

Multiple births following non-IVF assisted conception procedures such as ovarian stimulation and intrauterine insemination should also be audited and scrutinized; regulation and control of the use of drugs such as Clomid should be considered, and professionals in the field should be encouraged to consider the long-term welfare of their patients and the possible consequences of inappropriate use of this medication (McClamrock et al., 2012).

It is unarguable that women have the right to decide on the future of their pregnancies without undue restriction and interference from others. Even so, most women would
surely prefer not to be faced with the choice of fetal reduction, and a responsible IVF community has a duty of care to ensure the minimization of multiple pregnancies. Competition between private IVF clinics leads to a temptation to maximize pregnancy rates in order to attract more patients, and therefore to transfer multiple embryos, rather than to consider the best interests of patients and their offspring. Criticisms of the assisted conception industry as corrupt and greedy (Jha, 2007) could be counterbalanced by positive steps to address this problem.

Meanwhile, women will continue to be faced with difficult decisions as a consequence of multiple pregnancies, whether those decisions concern selective termination or fetal reduction. The similarities or differences between selective termination and fetal reduction are, in my opinion, of minor importance compared with introducing changes in practice that would minimize the need for these procedures.

References


Declaration: The author reports no financial or commercial conflicts of interest.

Received 11 March 2013; accepted 13 March 2013.