

# Prenatal surgery

*A professional belief in basing practice on the best possible evidence can be complicated by moral or ethical views. George Winter explores one instance where opposing belief systems may collide*

The first report of a prenatal intervention was made in 1963, when a life-saving intrauterine blood transfusion was undertaken on a fetus with severe haemolytic disease at 32 weeks gestation (Liley, 1963).

Since then, non-lethal conditions have been addressed with prenatal surgery. For example, Shanmuganathan et al (2017) reported on a 2016 conference organised by SHINE—the UK spina bifida charity—to consider the possible therapeutic pre- and postnatal dilemmas posed by the condition. Thus, one proponent of prenatal surgery, who described the results of open fetal surgery on 69 spina bifida cases over a 9-year period, reported that: ‘Shunt-dependent hydrocephalus at age 12 months was 21% in comparison to 52% in neonates operated on postnatally’ (Shanmuganathan et al, 2017: 2). However, a proponent of postnatal surgery suggested that ‘the selection criteria for prenatal surgery—regardless if open or fetoscopic—seemed to encompass the “easy” patients’ (Shanmuganathan et al, 2017: 5). He observed that, in these cases, ‘postnatal surgery is also likely [to] provide a good outcome and that the most challenging patients from a neurosurgical point of view were in fact excluded from prenatal surgery.’

Antiel et al (2017: 1) note that the benefits of prenatal surgery for spina bifida present ‘significant risks to both the pregnant woman and fetus, including the risk of prematurity or even fetal demise’. They point out that prenatal surgery for spina bifida has a 5% risk of fetal death, with some surgeons prepared to undertake

prenatal surgery and risk fetal death in an attempt to decrease subsequent disability. Antiel et al (2017: 1), suggest that ‘such reasoning implies that a life with disability is regarded as worse than death.’

To explore the extent to which physicians’ views of disability and death may influence their practice, Antiel et al (2017) sought the opinions of 670 paediatric surgeons, neonatologists and maternal-fetal specialists. In relation to prenatal surgery for a lethal condition that would probably result in a severely disabled child, 59% disagreed and 19% strongly disagreed that they would recommend surgery. Findings showed that ‘male physicians were twice as likely to recommend surgery for the lethal condition, as were physicians who believe that abortion is morally wrong’ (Antiel et al, 2017). For non-lethal conditions, prenatal surgery would be recommended by 66% ‘even if the surgery increases the risk of prematurity or fetal death.’

With Antiel et al (2017: 1) concluding that physicians’ attitudes to prenatal surgery were determined not only by their personal beliefs about disability, but also ‘demographic, cultural and religious characteristics’, one could suppose that midwives’ attitudes to prenatal surgery are similarly determined. In this context, I would speculate that while many health professionals assert the primacy of evidence-based medicine professionally, a substantial number may nevertheless subscribe to views that may conflict this, including religious beliefs.

My view is that although we may think we can separate belief from reasoning, this is often not the case when issues of morality arise in medicine. In an American study of 1154 obstetrician-gynaecologists, Stulberg et al (2012: e4) found that among those who practiced in religiously affiliated institutions, more than one in three ‘has

had a conflict with their institution over religiously-based patient care policies. This is true for more than one-half of those who work in Catholic facilities.’

Since no one is immune to espousing sincerely held beliefs, whether moral or religious, clinicians should be aware that their beliefs may have important implications for their patients. Indeed, Rodrigues et al (2013: 219) noted that fetal surgeons readily adopted the phrase ‘fetal patient’ into their vocabulary, using it ‘to justify the clinical and social value of their discipline and their own personal moral obligations towards the fetuses they operate on, almost as if it were an undisputable or self-evident truth.’

Midwives may argue that they are not paid to be ethicists. However, there is no denying the ethical framework within which midwifery is practised, and given the speed of progress in reproductive technologies, it seems likely that the future will entail further ethical challenges. **BJM**

Antiel RM, Curlin FA, Lantos JD et al. Attitudes of paediatric and obstetric specialists towards prenatal surgery for lethal and non-lethal conditions. *J Med Ethics* 2017. <https://doi.org/10.1136/medethics-2017-104377>

Liley AW. Intrauterine transfusion of fetus in haemolytic disease. *Br Med J*. 1963; 2: 1107–9

Rodrigues HCML, Van den Berg PP, Düwell M. Dotting the I’s and crossing the T’s: autonomy and/or beneficence? The ‘fetus as a patient’ in maternal-fetal surgery. *J Med Ethics* 2013; 39:219–23. <https://doi.org/10.1136/medethics-2012-100781>

Shanmuganathan M, Sival DA, Eastwood K-A et al. Prenatal surgery for spina bifida: a therapeutic dilemma. Proceedings of the SHINE conference, Belfast. *Ir J Med Sci*. 2017. <https://doi.org/10.1007/s11845-017-1709-6>

Stulberg DB, Dude AM, Dahlquist I et al. Obstetrician-gynecologists, religious institutions, and conflicts regarding patient-care policies. *Am J Obstet Gynecol*. 2012; 207:73.e1-5

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