

EDITORIAL

Abortion perspectives

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I look at abortion from the perspective of a doctor who has performed abortions, a physician who also has a PhD in embryology, and as someone who had the privilege of working all over the world in various aspects of human reproduction and sexuality.

ABORTION PROVIDER

As a young obstetrician in England I practised before the reform of the abortion law. I saw many women who had resorted to illegal, unsafe abortions. The latter either failed or were dangerous. Those of us trying to change the law were told by senior gynaecologists that abortion was exceedingly hazardous, even when legal. In 1966, I was sent to Eastern Europe where abortion had been legally available and was carried out safely for over a decade. On that visit I was perhaps the first Western physician to do outpatient vacuum aspiration abortions under local anaesthesia.

In the early 1970s I met Harvey Karman in America. Harvey was not a physician. He had operated illegally in Los Angeles and invented a hand-held syringe to perform early abortions. Having used an electric pump in Eastern Europe I saw immediately the power of Harvey's invention. Together we published the first account of manual vacuum aspiration (MVA), knowing that publication would prevent anyone patenting the device¹. Harvey died just over a year ago. I am sad he never received the recognition he deserved.

We knew abortion was a fairly simple procedure in the 1960s. Since then it has proved even safer than anyone believed possible. Today, first trimester surgical abortion is really a 5-minute operation, with

a death rate of less than one in 100,000. Where abortion is illegal and unsafe, as in much of Africa, it can be literally 1000 times more dangerous.

EMBRYOLOGY AND ETHICS

I am unusual – perhaps unique – as a physician who has done abortions and also has a PhD in embryology. Embryologic development is a slow, unbroken chain of complex events. There is no unambiguous milestone when one can say, 'Now the embryo has the status of a human being'. It is daily living that forces us to divide biological continuums into arbitrary stages.

Think about the less emotionally charged issues related to life *after* birth. Laws about when an individual can drink, drive, or vote are necessarily arbitrary. In Alaska you can drive at the age of 14, but in Hawaii not until 16. While we can argue over where to draw the line, no one suggests that a child of six years should be allowed to drive, or only those over 60 be allowed to vote. Similarly, when we think about life before birth, we can readily exclude the extreme ends of gestation. None of us would confuse a blastocyst four days after fertilisation with a six-month-old fetus. It is contrived and ridiculous to suggest that the use of emergency contraception or MVA is murdering a baby.

As an embryologist, I find structural development more important than genetic potential, as symbolised by fertilisation. Meiosis of the germ cells takes place in the early embryo, and fertilisation is merely one act in a drama that may take 40 years to play out. As late as 1869 the Vatican refused to comment on the

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subject of 'when life begins'². Yet in 1983, Pope John Paul asserted 'The inviolability of the innocent human being's right to life from the moment of conception until death'. I suspect that those opposed to abortion emphasise fertilisation because it predisposes us to think about the developing embryo as a newborn baby seen through the wrong end of a telescope. This is a huge and dangerous misunderstanding.

In January 2010, the American right-to-life zealot, Scott Roeder, was sentenced to life in prison for the first degree murder of George Tiller, a physician who did late abortions. Roeder, who shot Tiller in Church during Sunday service, calls all embryos and fetuses 'preborn babies'. Tiller is the fourth abortion provider to be murdered, and abortion in the US is now the one operation where the surgeon is more likely to die than the patient.

Only 70% of fertilised eggs implant in the uterus, and only six out of 10 of those implanted survive past the second week of gestation³. Serious chromosomal abnormalities are seen in over half of all spontaneously aborted embryos and fetuses^{4,5}. Some acts of normal sex and fertilisation give rise to hydatidiform moles. They are genetically unique, but we give them no ethical or legal protection.

Religious assertions about when life begins are philosophically analogous to religious beliefs about life after death. They are both strongly held, but beyond the realm of science to prove or disprove. As an embryologist, I can no more tell you when life begins by looking down my microscope than an astronomer can tell you if heaven exists by scanning the constellations to look for the Pearly Gates. In any pluralistic society, where church and state are separated, the problem is *not* agreeing or disagreeing with the belief that abortion is murder, *but* accommodating in a respectful way to a variety of sincerely held opinions on a complex topic.

When I did research at Cambridge University, my friend Bob Edwards was working on *in vitro* fertilisation (IVF). When the first IVF baby was born in 1978, Pope John Paul welcomed the birth with his 'most heartfelt congratulations to the English baby girl whose conception was achieved artificially'. The present Pope, as Cardinal Ratzinger in 1987, persuaded Pope John Paul II to teach, 'Such fertilisation is in itself illicit and in opposition to the dignity of procreation and of the conjugal union'. Why this reversal?

The assertion of Catholics and fundamentalist Christians that abortion is murder has no basis in theology. Only two verses in the Holy Bible refer to abortion. *Exodus* 21:22 recognises an involuntary abortion as a crime, but it is explicit that an abortion itself is not murder. The Catholic ethicist Daniel Callahan points out that 'It is left up to man to define what an innocent life is [...] To place the solution in the hands of God is to misjudge God's role and misuse human reason and freedom'⁶. Whether we have a theological or embryological perspective, in the end, the decision to have or to provide an abortion is a matter of *human* judgment. Personally, I would rather see 30 abortions at six weeks' gestation than one at 20 weeks. But I have done late abortions when teenage girls were pregnant after having been raped in the Bangladesh War of Liberation in 1971.

I see disputes about the ethics of abortion as part of a battle about who controls reproduction – *women* or *men*, and I see the Pope and cardinals not as loving shepherds of a flock seeking ethical guidance, but as thoughtless herdsmen leading their flock blindly over a moral precipice.

LESSONS LEARNED

Abortion is not a war with a victory or surrender. It has no season like a famine. It is not a widespread, instant catastrophe like a tsunami. It is simply a slow moving muddy river sweeping along human anguish, suffering and hypocrisy made up of tens of millions of asynchronous, isolated, private events. We need to stop apologising and take the ethical high ground: abortion, like so much else we do as physicians, is a *healing* process. If spontaneous abortions did not eliminate most congenital abnormalities, few women would ever wish to get pregnant. Most induced abortions *heal a social sickness*. A 5-minute operation on a 17-year-old woman unintentionally pregnant can change the trajectory of the next half century of her life – few other procedures in medicine have that power.

In my experience women know more about their situation than anyone else. I have learnt that women seek an abortion because, from their perspective, the baby, if born, would not receive the love and care they perceive a child needs and deserves, or because they wish to optimise childbearing and the current pregnancy is mistimed. If we frame abortion as a woman's right, we invite a counterargument that the

embryo has a right to life. I think we should talk not about rights but about responsibilities: the responsibility to let others follow their conscience; the responsibility to ease suffering; the responsibility to encourage gender equity and social equality.

I have learnt that abortion is as essential to modern living as the internal combustion engine or telecommunications. Studies show that on average every woman now entering the fertile years is likely to have one induced abortion before she reaches the menopause.

I have been into hospital abortion wards in more countries than I can count. I have shared scientific information on safe abortions in countries such as the Philippines, where abortion is illegal. I have seen the power of technology to give women choices. Neither Harvey Karman nor I guessed that MVA would remain the preferred method of abortion for hundreds of thousands of women almost 40 years later. I see medical abortion as the last step in liberating women from the male drive to control female reproduction.

Let me suggest a thought experiment. Suppose the big-brained, talking, tool-using dominant animal was

a kangaroo instead of a primate – it would be easy to empty the pouch of an unintended joey (young kangaroo). Or suppose, more simply, that rhubarb had happened to be a totally effective emmenagogue (substance that induces the menstrual flow). Every woman would grow it in her garden, window box or plant pot. Laws controlling abortion would not arise, and could not be enforced, unless women needed the help of a second party to end a pregnancy.

Without this constraint no society, however patriarchal, would have been able to outlaw abortion. The self administration of misoprostol (and mifepristone) has the potential to bypass every constraint. A recent study in India found no statistical difference in success rates between home and clinic users of medical abortion⁷. A UK study found similar satisfaction with self medication for medical abortion⁸. A new age is dawning where every woman will be able to make a personal decision about if and when to have a child.

No doubt some doctors, many clerics, and a lot of politicians will resist this freedom. We must fight to ensure that it becomes universal.

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