FIGO position statement on induction of foetal asystole in abortions at advanced gestations

Induction of foetal asystole refers to the medical procedure that intentionally causes the cessation of the foetal heart (cardioplegia). In the context of abortions at advanced gestations, cardioplegia is sometimes performed to ensure that the foetus is not delivered with any signs of life.[1] This approach is generally taken to comply with maternal requests, religious beliefs, to avoid any potential legal and ethical implications of a live birth, and for technical reasons.

Induced abortion at advanced gestation may be necessary for a number of reasons (see our position statement Improving access to abortion beyond 12 weeks of pregnancy). Therefore, evidence-based training and adequate equipment should be available to ensure its safety and availability in every setting in accordance with local laws.

Ethical considerations

Induction of foetal asystole, particularly in the context of abortions at advanced gestations, is a highly sensitive issue. The ethical considerations primarily revolve around the following.

Viability

Viability is defined as the point at which a foetus can potentially survive outside the womb, generally considered to be around 24–28 weeks of gestation. The gestational age at which extrauterine survival is possible depends on the context and technical resources available and has not been defined by an absolute number of gestational weeks or weight.[†]

Although viability is a medical concept relevant to neonatal and intensive care provision in the context of spontaneous or medically indicated preterm deliveries, it is frequently associated with local laws related to induced abortions.

The gestational age at which extrauterine survival is possible depends on the context and technical resources available, but in general, transient signs of life may be seen from the 20th week. The earliest gestational age at which survival has been achieved with the most advanced technology has been reported to be around 23 weeks.

In the context of induced abortion at advanced gestations, irrespective of the reason, induction of foetal asystole should be considered at least, at the lowest gestational age at which survival without intervention is possible. This cut off depends on the technical resources available in each country or region. Clinical decisions should be responsive and appropriate to the legal and medical setting in which the services are being provided and according to the broadest interpretation of the law, understood as the one that better protects the pregnant person's fundamental human rights.

[†] Neither FIGO nor WHO have a position on the gestational age of viability, because viability varies greatly depending on resources, context and foetal conditions.

Foetal pain

The question of foetal pain during cardioplegia and abortions at advanced gestations is a contentious issue. Research suggests that the structural pathways to sense pain develop around 29 weeks of pregnancy, and it is unlikely that the foetus can experience pain until birth.[2,3] This is because the ability to perceive painful sensations and emotions depends on several factors, ranging from the functions of neurological structures that develop throughout the foetal period (starting at 24–28 weeks) to the psychological and social experiences that only occur after birth.

Pre-procedure cardioplegia ensures that the delivered foetus does not experience suffering after birth and prevents the delivery of a live newborn during an abortion procedure.

Legal implications

In some jurisdictions, performing foetal asystole is legally required in abortions at advanced gestations to avoid the possibility of a live birth, which can have legal, ethical, medical and emotional implications for both patients and healthcare providers.

Although induction of foetal asystole should be regarded as a healthcare intervention with no need of regulation outside the context of health, countries and territories have varying laws regarding the gestation at which this procedure is required, or whether it is allowed.

Indications for induction of foetal asystole

Medico-legal indications

In some countries or territories, laws regarding abortion at peri or post viability require induction of foetal asystole before other abortion procedures are performed. Legal gestational age limits for abortion are very varied around the world. Where abortion in such circumstances is permitted at gestations when extrauterine survival is possible (peri or post viability), cardioplegia should be performed to avoid an unintended live birth resulting from the intervention (either at short or long term).

Ethical indications

In many hospital settings, ethical norms and hospital policies require neonatal resuscitation if there are signs of life at delivery at a peri viable gestational age. If the intention is to perform an abortion, cardioplegia can be performed to ensure that the foetus will not be delivered with signs of life, thus avoiding any policy implications surrounding neonatal resuscitation and iatrogenic prematurity.

Maternal request

In some circumstances, a patient may request for foetal asystole for social, cultural or religious beliefs. In these situations, the risks and benefits of cardioplegia should be discussed to enable shared decision-making regarding induction of foetal asystole for maternal request. Risks are related to inadvertent injection into maternal circulation, infection, and discomfort at puncture site. Maternal benefits may include decreased uterine blood flow and shorter interval times of induction after fetal demise.

Methods of inducing foetal asystole

Several methods are used to induce foetal asystole during peri and post viable abortions.[4] The choice of method for inducing foetal asystole depends on local–regional medication availability and the training and preferences of the provider, after presenting the available options to the patient.

Potassium chloride injection[5,6]

- Potassium chloride (KCl) is injected directly into the foetal heart or umbilical vein under ultrasound guidance.
- This method induces fetal asystole (cardiac arrest) almost immediately[7] in over 99% of cases with adequate training and skills.
- Dose: 5–15 mL of KCl solution (2 mEq/mL) given in 5mL increments.

Lidocaine injection[8]

- Lidocaine, a more widely available medication, is injected directly into the foetal heart or intrathoracically, under ultrasound guidance, causing foetal asystole with the first dose in 99% of the cases when injected intracardiac, and 97% if intrathoracic.
- Dose: 20 mL of 1% lidocaine or 10 mL 2% lidocaine. A second dose may be required; a maximum dose up to 480 mg of lidocaine is safe.

Digoxin injection[9,10]

- Digoxin is injected into the amniotic sac or directly into the fetus 24-48 hours before an abortion procedure.
- The injection can be performed transabdominally or transvaginally at the time of cervical preparation before dilation and evacuation.
- It is technically easier, and can even be done without ultrasound guidance, but takes longer to induce foetal demise, and the efficacy is variable depending on the location of the injection. If injected, intracardiac effectiveness can be over 99% in the next few minutes. Intrafoetal injection is over 98% effective typically within 6 hours. Intraamniotic injection is up to 92% effective at 24 hours.
- Dose: 1mg (intrafoetal) to 2 mg (intraamniotic) of digoxin.

Umbilical cord transection

- In some cases, cutting the umbilical cord to stop the blood supply from the placenta is possible. This method is typically used during provision of procedural abortions – dilation and evacuation.
- Cessation of foetal cardiac motion after cord transection may take several minutes.

Conclusion

Induction of foetal asystole in abortions at advanced gestations is a complex and sensitive issue that intersects with social, legal and ethical concerns. It is generally performed to ensure that there are no signs of life during an abortion procedure or to avoid survival in accordance with the definition of induced abortion.‡ There are several methods of safe and effective cardioplegia.

Healthcare providers involved in these procedures must be aware of the local laws, ethical guidelines, and the specific medical circumstances that allow or necessitate inducing foetal cardioplegia. Clear communication with patients about the rationale, process and implications of the procedure is also crucial in ensuring shared decision-making and compassionate care.

References

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‡ According to World Health Organization (2019), *International statistical classification of diseases and related health problems*, artificial termination of an ongoing pregnancy (also referred to as induced abortion, legal abortion, foetal reduction) is defined by ICD-11 as the complete expulsion or extraction from a woman of an embryo or a foetus (irrespective of the duration of the pregnancy), following a deliberate interruption of an ongoing pregnancy by medical or surgical means, which is not intended to result in a live birth.

FIGO Statement

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About FIGO

FIGO is a professional membership organisation that brings together more than 130 obstetrical and gynaecological associations from all over the world. FIGO's vision is that women of the world achieve the highest possible standards of physical, mental, reproductive and sexual health and wellbeing throughout their lives. Our work to achieve this vision is built on four pillars: education, research implementation, advocacy and capacity building.

FIGO leads on global programme activities, with a particular focus on sub-Saharan Africa and South East Asia. We advocate on a global stage, especially in relation to the Sustainable Development Goals (SDGs) pertaining to reproductive, maternal, newborn, child and adolescent health and wellbeing, and non-communicable diseases (SDG3). We also work to raise the status of women and enable their active participation in achieving their reproductive and sexual rights, including through addressing female-genital mutilation (FGM) and gender-based violence (SDG5).

We also provide education and training for our Member Societies and build capacities of those in low-resource countries through strengthening leadership, translating and disseminating good practice and promoting policy dialogues.

FIGO is in official relations with the World Health Organization and a consultative status with the United Nations.

About the language we use

Within our documents, we often use the terms 'woman', 'girl' and 'women and girls'. We recognise that not all people who require access to gynaecological and obstetric services identify as a woman or girl. All individuals, regardless of gender identity, must be provided with access to appropriate, inclusive and sensitive services and care.

We also use the term 'family'. When we do, we are referring to a recognised group (perhaps joined by blood, marriage, partnership, cohabitation or adoption) that forms an emotional connection and serves as a unit of society.

FIGO acknowledges that some of the language we use is not naturally inclusive. We are undertaking a thorough review of the words and phrases we use to describe people, health, wellbeing and rights, to demonstrate our commitment to developing and delivering inclusive policies, programmes and services.

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