

ADVERSE PERINATAL RESULTS LINKED TO INDUCED ABORTION

Eduardo Cuestas¹.

Premature births are a major health issue in Argentina. Despite recent advances in medical attention, they remain the main cause of neonatal morbidity and mortality worldwide. It has been shown that the risk of developing neonatal diseases increases as gestational age diminishes. The short-term complications of premature birth, such as respiratory distress syndrome, necrotizing enterocolitis intraventricular bleeding and sepsis are all serious conditions that pose significant challenges for neonatal intensive care units. Premature births are also associated to serious long-term consequences, especially neurological disabilities, such as cerebral palsy, and chronic medical conditions, such as bronchopulmonary dysplasia, among many other adult cardiometabolic conditions.

The rate of premature births has increased, and in Argentina in 2017 it was estimated to be around 8% of all births. Several studies have shown a connection between induced abortion and prematurity in posterior pregnancies. This relation is relevant to Argentina due to the high number of abortions carried out annually. It is estimated that 370.000 to 520.000 abortions were carried out in Argentina in 2017, with 680.000 births the same year.

Previous studies have examined the relation between induced abortions (medical and surgical) and premature births and have suggested that abortion is linked to higher risk of premature birth, premature membrane tearing and prenatal bleeding. However, few studies have evaluated the effect that induced abortions have over the severity of prematurity. Although the causal mechanism of premature birth is mostly unknown, it has been suggested that premature birth can be associated to cervical weakness, infection or a combination of both.

The results of the analysis of a large cohort that was recently carried out suggest clearly that a history of induced abortion increases the risk of spontaneous premature birth in later pregnancies, and the strength of this correlation is stronger in extremely premature births.

The birth of premature babies represents a heavy burden for society the world over, demanding considerable effort to treat and provide attention, care and support to prevent or manage its short-term morbidity (including respiratory distress, necrotizing enterocolitis and intraventricular bleeding) and long term morbidity, including the demand for special education associated to cerebral palsy, and intellectual, visual and auditory impairment.

As regards the association between induced abortion and premature birth, hypotheses involving either infectious or mechanical components have been proposed. In order to clarify this matter, different works have revised these hypotheses and have proposed specific mechanisms (such as intraamniotic infection, prenatal bleeding and cervical weakness) that lead to premature births in women with a history of induced abortion. Intraamniotic infection is the most widely studied mechanism. In a study of cases and controls, Krohn *et al* found a strong association between intraamniotic infection and the antecedent of induced abortion. Although the mechanism underlying to this association is unknown, this study suggests a connection with a well-known pregnancy-related complication (chorioamnionitis), but it does not prove the causal link by providing a specific physiopathology and chronology of the infection process. Unlike that, several studies carried out during the last decade have verified the hypothesis of uterine damage, be it morphological or functional.

Procedures for terminating pregnancies are now carried out at a lower gestational age, most of the times carried out by aspiration instead of by suction and curettage, and the usage of PGE analogues like misoprostol and anti-progestagens like mifepristone is becoming more widely extended and accessible. These newer techniques can reduce the seriousness of uterine trauma. A cohort study carried out in Denmark showed a cervical injury rate of 0.89 every 1000 women in pharmacological abortions. Nonetheless, cervical damage, be it microscopic or macroscopic, could result in a permanent weakening of the cervix. It is not improbable that the mechanical alteration of the cervix could lead to a higher predisposition to infections of the genital tract or cervical weakness that causes premature birth. The fact that the association between abortion and reduced gestational age suggests that a mechanical issue is the most likely explanation, as it is often the case with mild or severe cervical weakness (in the latter case, birth normally occurs within the second trimester).

¹ Chief editor

Fertile women are often not aware of all the possible long and short term complications linked to induced abortion. Therefore, solid public health policies must be established in order to guarantee there are effective contraceptive methods in order to reduce the need for induced abortions due to unwanted pregnancies. Reducing the demand for induced abortions by providing safe and effective contraceptives for all women who require them should be considered one of the most relevant approaches to the reduction of prematurity rates.

Eduardo Cuestas
Chief Editor