

EDITORIAL

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Importance of fetal surgery in the solution of fetal problems during pregnancy

Importancia de la cirugía fetal en la solución de problemas fetales durante la gestación

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Medicine is advancing by leaps and bounds thanks to the development of technology in the diagnosis and treatment of various diseases. Undoubtedly, fetal medicine is a relatively new field in obstetrics that emerged a few decades ago, following perinatology.

Fetal medicine is a branch of obstetrics focused on the fetus as a patient, considering it as a real patient and making it obtain its own rights. Thus, the principles of beneficence and non-maleficence are applied to the fetus.

The development of fetal medicine as a high specialty dates back to the beginnings of fetal monitoring. In 1906, Cremer Manchester, a physician, created the fetal electrocardiogram with the intention of monitoring the fetus in the womb⁽¹⁾.

In 1957, the engineer Tom Brown and Dr. Ian Donald, based on the use of ultrasound as a military technique and later in different branches of medicine, built a two-dimensional contact scanner, which avoided the immersion technique. They took pictures with Polaroid film and published the study in 1958. In the same year, Dr. Donald initiated obstetric studies based on echoes from the fetal skull⁽²⁾.

In 1961, prior to the development of ultrasound, Liley performed the first blind intrauterine transfusion⁽³⁾. In 1982, the first open fetal surgery was performed by Dr. Harrison on a fetus with bilateral hydronephrosis which was resolved by creating a vesicostomy⁽⁴⁾.

From the 1980s to date, internationally organized groups, such as the Fetal Medicine Foundation directed by Dr. Kypros Nicolaides, have been a source of medical knowledge production and have revalidated fetal surgery as a high specialty in the field of modern medicine.

Previously there was no answer for some fetal conditions that were incompatible with life. Currently, although still under investigation, techniques have been developed ranging from drug interventions, ultrasound-guided percutaneous interventions, open uterine surgeries, and even minimally invasive surgeries such as fetoscopies to treat some of these intrauterine fetal pathologies.

The topics covered in this symposium deal with aspects related to fetal surgery performed in different Latin American countries, such as Argentina, Ecuador, Dominican Republic, Mexico and Peru.



It is worth mentioning that the symposium also highlights the approach to the fetus as a patient, describing in the different articles the main pathologies by organs and systems, as well as the process of creation of fetal medicine and surgery units in these Latin American countries. Likewise, many of the Latin American authors describe the situation of fetal surgery in their respective countries from the point of view of Public Health.

Among the main pathologies addressed in this symposium are those involving the fetal cardiovascular system, such as cardiac tumors and severe fetal anemia; the respiratory system, including hydrothorax and congenital diaphragmatic hernia; the urinary system, such as lower urinary obstructions; complications of multiple pregnancies, including feto-fetal transfusion syndrome, selective growth restriction, anemia-polycythemia sequence, reverse arterial perfusion sequence; and finally, the importance

of screening for fetal congenital heart disease before performing intrauterine surgery.

The relevance of holding this symposium lies in showing how the different centers in Latin America, especially in Peru, are advancing in this subspecialty which, over the years, increases its impact on fetal health, thanks to the progress of technology as well as the experience of specialized medical personnel.

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