Perinatology – the link between Obstetrics and Neonatology

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ABSTRACT
Starting from the end of the XIXth century, a decrease in infant mortality was observed worldwide. Care of preterm infants became the domain of dedicated units inside hospitals and technology became more complex. Neonatal Intensive Care Units were created throughout the world, increasing infant survival chances regardless of age and pathology. Alongside Neonatology, better means of investigating the pregnancies were discovered. Ultrasound use during pregnancy improved the chances of identifying complex genetic syndromes, some incompatible with survival after birth.

It is considered that Stéphane Tarnier (1828–1897) is the architect of Perinatology, many of his inventions had a major role in the evolution of Obstetrics and Neonatology (the Tarnier forceps, the basiotribe, intrauterine balloon for inducing the labor, gavage feeding of the preemies).

But only in 1967 the term “perinatology” was mentioned for the first time in a german paper. Professor Emeritus Erich Saling is the father or perinatology. He introduced the evaluation of gas exchange for the fetus during labor and the examination of amniotic fluid during the last weeks of pregnancy.

Today, Perinatology is a widely used concept, but the road to creating this concept was long and needed the work of many prominent doctors.

Keywords: Obstetrics, Neonatology, Perinatology, high-risk pregnancies, preemies

High-risk pregnancies have always been the prerogative of Perinatology. Special follow-up during pregnancy is necessary for every complicated pregnancy. The best support in these cases is provided in tertiary maternity hospitals with highly trained staff in Obstetrics and Neonatology.

The pregnant woman at risk should be deferred until the end of pregnancy, with facilitated transit between health services, ensuring appropriate care in a timely manner. Risk assessment should take place on an individualized basis during history, with a reassessment of gestational risk in all antenatal consultations [1]. Worldwide, 10%–30% of pregnancies are estimated to be “at risk” [2,3,4,5].

In recent years, multidisciplinary teams consisting of obstetricians, neonatologists and geneticists have been able to improve the quality of high-risk pregnancy monitoring. Pregnancy can be felt as a time of additional risk for women living with a chronic disease that requires increased monitoring or supervision [6].

Older primiparous women are more likely to be single, have chronic conditions, and have higher rates of gestational diabetes, gestational hypertension, and preeclampsia/eclampsia. Multiple pregnancies carry additional risk and may reduce the effect of age. In a multivariable analysis, age ≥45 was an independent risk factor for gestational diabetes, gestational hypertension, and preeclampsia/eclampsia. Preexisting and pregnancy-related hypertension is the most common complicating conditions, particularly due to their high prevalence in older and overweight women. The chances of being diagnosed with chronic hypertension are two to four times higher in women aged ≥35 years (compared to 30–34 years) [7,8].
Women with risk factors for high-risk pregnancies have a one-in-four chance of developing complications than those with low-risk high-risk pregnancies, who have almost a one-in-ten chance [9]. The central focus of maternal and child care programs has been on the detection of at-risk pregnancies to prevent women from developing obstetric complications at birth [10]. Risk assessment is a key component of antenatal care and has demonstrated benefits in improving maternal and perinatal outcomes [11,12,13].

Thoughtful messages about age diversity in health care settings and other maternal care settings can reduce negative perceptions of age-related reproductive health stereotypes and any potential stigmatizations can reduce negative perceptions of age-related health care settings and other maternal care settings [14].

Families of high-risk newborns are at increased risk of negative impacts on their mental health, employment and financial security.

About one in 10 newborns is sick at birth, most diseases being caused by prematurity. Many will need to be admitted to the neonatal intensive care unit (NICU) [15].

Many problems can affect high-risk newborns who need intensive care, including prematurity, infections, and congenital or genetic problems. Working in the NICU requires supporting newborns with all aspects necessary for survival. This includes ventilating the immature lung, facilitating the transition to life outside the womb, supporting heart function, protecting the newborn brain at critical points in its development, and providing adequate nutrition to support the growth and development of these key organs.

High-risk newborns require prolonged hospitalizations and permanent outpatient care, with associated high costs for health systems and families. Families of high-risk newborns are at increased risk of negative impacts on their mental health, employment and financial security.

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**REFERENCES**


