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EDITORIAL

Congenital tuberculosis: a challenge to overcome

Tuberculosis (TB) continues to be a major public health problem, especially in developing countries where the incidence has not changed despite advances in diagnostic methods and use of different treatment schemes. Persistence or increase in the rates of TB necessarily affects the rates of perinatal TB. TB during pregnancy has a double impact, both on maternal mortality as well as on neonatal mortality. The World Health Organization (WHO) reported that TB was the cause of death for 500,000 women and at least 64,000 children in 2010¹. The exact incidence of TB in pregnancy is not known with certainty in many countries due to a large number of confounding factors.

Tuberculous infection during the perinatal period can, in principle, have two courses. First, the evolution that a woman with TB will have when she becomes pregnant, in general, has a negative effect that could promote the resurgence or reactivation of latent TB or the lack of control of untreated active TB. Second, TB could worsen the disease along with extrapulmonary dissemination in the pregnant female, in which case the fetus may also be affected (spontaneous abortion, small-for-gestational age newborn) and could also result in premature labor, low birth weight and increase in neonatal mortality. When the diagnosis is established during the puerperium, the prognosis is very poor².

The term of perinatal TB encompasses cases of tubercular disease acquired during pregnancy (congenital), during childbirth or during the early neonatal period. Due to difficulty in diagnosis and severity of evolution, congenital TB represents the main challenge. Despite the high incidence of TB and its subclinical forms in women of reproductive age, congenital TB is a rare disease with a mortality rate of ~20% in developed countries. The probable reason for its consideration as a rare disease is the underreporting and lack of opportune diagnostic tools.

There are two main routes of infection of congenital TB. First, transmission from mother to fetus could occur via the placenta through the umbilical vein, thus forming a primary complex of *Mycobacteria* in the liver of the fetus, with secondary blood dissemination. Second, aspiration or ingestion of amniotic fluid leads to the formation of a primary complex in the lung or in the gastrointestinal tract. Signs and symptoms appear after the first 3 weeks of life. Congenital TB, as shown in the clinical case presented by Sáenz Gómez et al. in this issue of *Boletín Médico Hospital Infantil de México* (BMHIM), could initially be confused with other neonatal or congenital infections that have similar signs and symptoms in the second to third weeks of life. These symptoms include hepatosplenomegaly, respiratory difficulty, fever and lymphadenopathy. Up to 60-70% of mothers have no symptoms during pregnancy or their clinical manifestations are masked. Newborns tend to have nonspecific signs and symptoms³⁻⁵. In >60% of cases of perinatal TB, maternal disease is diagnosed after it has been diagnosed in the children. Radiographic abnormalities may also be present, but appear late, and frequently an etiology different from TB is suspected. This leads to late treatment and consequently an increase in mortality.

Because of its frequency, suspicion of this apparently "rare" condition is very important in developing countries⁶. Although some diagnostic criteria can be used, suspicion of this disease is essential, especially in areas of major endemicity and when there is a history of maternal infection or of contacts of the pregnant woman with family members with TB. Due to the low experience worldwide, there are few well-founded guidelines in regard to the treatment of this potentially devastating disease. To date, with instituted and accepted treatments for management of TB in other age groups and if the condition is recognized and treated in a

timely manner, the result is favorable⁷. Although there are recent diagnostic methodologies and new methods of prevention are being explored, including vaccines, clinical suspicion will have the most favorable impact on the prognosis of an infected newborn.

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