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Editorial:

Q FEVER AND PREGNANCY

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Version en español

Q fever (QF) is a worldwide zoonosis caused by *Coxiella Burnetti*. People are mainly infected due to inhalation of contaminated aerosols[1,3]. It is generally treated as an occupational disease, although isolated cases and outbreaks in people with indirect contact with infected animals have been reported[1]. Acute QF has a wide clinical spectrum that includes isolated febrile syndrome, pneumonia and hepatitis, although the majority of cases are asymptomatic[4]. Chronic infection mainly involves endocarditis, although it can affect vascular implants and bones[1,4]. Serology continues to be the diagnostic method of reference. Domestic animals and farm ungulates are the main reservoirs, and cause abortions and various obstetric complications in these.

Q fever is usually asymptomatic during pregnancy, although there is a higher risk of it becoming chronic[2-6]. Furthermore, it has been associated with diverse obstetric complications, such as miscarriages, intrauterine death, prematurity, oligoamnios and delayed intrauterine growth[2-3]. However, it is highly unlikely, except in epidemic situations, that the primary form of this infection is contracted during pregnancy.

As we will see below, something different could happen as regards the

secondary or recurrence of the infection.

This microorganism can persist in the uterus, breast, bone marrow, and other body tissues for years, and be reactivated later in situations of immunodepression or pregnancy[3,8-10]. This fact, known for a long time in animals, can also be a common cause of obstetrics complications in humans.

Our group has recently demonstrated a strong association between serology titers compatible with active or recent Q fever infections and miscarriage in the province of Burgos (Spain)[9]. According to our data, up to 12% of miscarriages could be associated with this infection, probably due to reactivation of a previous infection. To understand the scope of these findings, it should be remembered that miscarriage is by far the most frequent obstetric complication (it explains up to 20% of fetal mortality), and up to the present time, a significant relationship between miscarriage and other infections has been unable to be shown.

It may be worth noting that the mortality and morbidity associated with toxoplasmosis during pregnancy is 1-4 per 1000 births, and for congenital rubella it is approximately 0.2 per 10,000 births[5].

Other groups that have work on the subject have obtained disparate and contradictory results, perhaps due to the limited seroprevalence observed and the deficient methodology applied[4-8, 10,11]. Something similar occurs with the more delayed obstetrics complications (those that take place in the second or third trimester of the pregnancy) where the discrepancies observed are even greater. As regards this last aspect, we do not know what happens in our area, a traditionally endemic Q fever region.

We conclude by pointing out the need to perform serological screening of *C. burnetti* in all pregnant women who are seen in our clinics.

It should be remembered that the primary form of the infection has been successfully treated in pregnant women, and that there are effective vaccines that could prevent the infection.

Lastly, and given the strong relationship between serology compatible with active Q fever and miscarriage, a clinical trial should be carried out to demonstrate whether treatment with specific antibiotics could alter the risk of suffering from it. This should be done at the beginning of the pregnancy, since 50% of our pregnant women miscarriage before seeing the doctor. In fact we should know if there has been previous exposure to the microorganism before the pregnancy, when the preventive measures against a possible reactivation of the infection would be more effective.

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