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Fetal Pleural Effusion as A Echographic Marker of Congenital Syphilis

Caroline Mombaque dos Santos[1], Wendel Mombaque dos Santos[2,*], Francisco Maximiliano Pancich Gallarreta[2], Caroline Eckerdt Schroer[1], Edson Nunes de Morais[1]

[1]Fetal medicine department, Federal University of Santa Maria, Santa Maria/RS, Brazil
[2]Occupational health department, Brazilian Company of Hospital Services, Santa Maria/RS, Brazil
*Corresponding author: wendelmombaque@hotmail.com

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Abstract **PURPOSE:** To report a case of fetal pleural effusion with antenatal diagnosis of congenital syphilis. **CASE DESCRIPTION:** Patient aged 24 years, two previous vaginal deliveries, without pre-natal exams, referred to the Fetal Medicine Unit of the University Hospital of Santa Maria due to preterm labor, without gestational age. Performed obstetric ultrasound that identifies bilateral pleural effusion without fetal hemodynamic consequences plus polyhydramnios and fetal growth consistent with 32 weeks and 3 days. Maternal syphilis diagnose and started treatment for patient and the partner. Patient had premature rupture of two days after admission membranes, evolving in 24 hours for vaginal delivery for women and newborns, Apgar 8 -10, 1834 g, which had a positive VDRL and remained hospitalized for treatment of congenital syphilis and gain weight. Pleural effusion regressed spontaneously. **CONCLUSIONS:** pleural effusion are a complication of congenital syphilis may be part of fetal hydrops and is an unusual fetal complication of a preventable disease, an alert to public health.

Keywords: *Syphilis, Congenital, Ultrasonography, Prenatal, Pleural effusion*

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1. Introduction

Syphilis is a disease with sexual and vertical transmission, with known etiologic agent and treatment offered in the basic health network, which even with an underreporting reaches an incidence of 32% of cases of gestational syphilis and 17.4% of congenital syphilis [1].

In Brazil, between 1998 and 2012 were reported 80 041 cases of congenital syphilis in children under one year of age and 1780 cases of death in the same period for this disease [1]. This results from hematogenous spread of Treponema pallidum of the mother to the fetus through the placenta, with direct invasion of fetal tissues that lead to negative outcomes that can reach 50% of pregnant women with syphilis, which is 10-12 times more likely to miscarriage, perinatal mortality, low birth weight, even after treatment, than a seronegative patient [1,2].

It is therefore of great relevance to public health that cases of fetal abnormalities still diagnosed in the prenatal ultrasonography are exposed to the scientific community in order to elucidate the various nuances that a condition can present.

The pregnant woman approved by the Ethics Committee of the Federal University of Santa Maria based on Resolution 466/2012 of the National Board of Health and by the application of consent the publication of the case.

2. Case Report

Patient PSX, 24, unmarried 2 previous pregnancies - of which 2 vaginal deliveries and none miscarriage - no pre-natal consultations, drug user, was admitted to the obstetric center for labor (contractions and effective vaginal ring with 4 cm dilated, 100% off, fine, centered and intact membranes) without the dating pregnancy with uterine height of 30 cm.

Performed obstetric ultrasound examination which identifies bilateral pleural effusion (Figure 1) without fetal hemodynamic consequences (fetal hemodynamic profile of 0.65 - Figure 2), polyhydramnios - amniotic fluid index of 32 and fetal growth consistent with 32 weeks and 3 days, with waist circumference above the 90th percentile for gestational age dated in this examination. No other findings in fetal morphology.

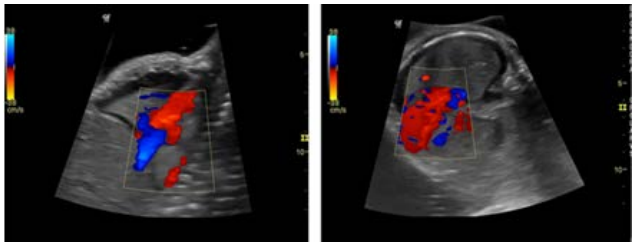

Figure 1. Bilateral fetal pleural effusion

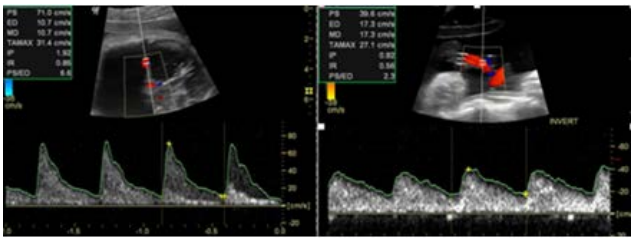

Figure 2. Bilateral fetal pleural effusion

During hospitalization corticosteroid, therapy was prescribed and performed routine prenatal tests, maternal syphilis diagnosed with other negative serology and other laboratory tests (blood count, urinalysis, TSH, glucose) within the normal range, started well, treatment for patient and the partner. And patient had premature rupture of two days after admission membranes, evolving in 24 hours for vaginal delivery for women and newborns, Apgar score 8 (first minute of life) and 10 (fifth minute of life), weight 1834 g, which had a positive VDRL and remained hospitalized for treatment of congenital syphilis and gain weight. Pleural effusion regressed spontaneously without other repercussions and examination of eye and normal abdominal ultrasound.

3. Discussion

Syphilis can be classified as primary, secondary, latent, tertiary or congenital and the prevalence in Brazil is 1.6% [1]. In addition, it is a nonsense an easily diagnosable pathology with disastrous consequences for prenatal still be prevalent in our country [1].

Risk factors related to congenital syphilis are not performing prenatal care, teenage pregnancy, the use of illicit drugs by the mother or the partner (crack / cocaine), the absence of fixed sexual partner and / or the existence of multiple partners, low educational level and socioeconomic status, multiparty, limited access to health services and the presence of other sexually transmitted diseases in women or partner [1,3]. Moreover, the pregnant woman had reported almost all, corroborating the literature and serves as a warning to health care professionals to have acquired syphilis during pregnancy as a probable diagnosis, even without specific symptoms.

It is recommended to carry out two tests for the diagnosis of syphilis during prenatal care and at delivery [1] and whenever a patient is attending a health care service should be reviewed their serology, as was the case this pregnant.

Preterm birth and pleural effusion found in this case are complications of congenital syphilis and the start of pleural effusion may be part of fetal hydrops is a result of acute cardiac decompensation and obstruction of venous return from the placenta, without your data real impact on [4] literature. As the fetus delivery in question occurs soon after diagnosis, justifies the ultrasonography finding of pleural effusion and not just generalized edema.

The recommended treatment and prescribed to pregnant patient of this case was benzathine penicillin and the only one able to prevent congenital syphilis and no treatment courses with 80 to 100% chance of fetal contamination [1,3,5].

Only about 20% of fetuses with congenital syphilis survive [4]. The newborn had low birth weight, but the signs and symptoms of congenital syphilis may appear even after the second year of life, attending including bone and neurological disorders [3].

This case is valid because it is an unusual fetal complication of a preventable disease with favorable perinatal outcome, which refers to the need for better coverage of early diagnosis and proper treatment, a challenge to public health.

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