Original Research Paper



CONGENITAL SYPHILIS: PRESENTATION OF A CLINICAL CASE

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ABSTRACT
Objectives: Describe the frequency, causes, clinic, diagnosis, complications and treatment of the disease.

Method: A clinical case analysis study of a newborn patient with symptoms of congenital syphilis caused by vertical transmission was performed.

Result: Newborn, late preterm, with positive mother for syphilis at 30 weeks of gestational age and without receiving treatment. She was initially hospitalized for respiratory distress; Positive tests for congenital syphilis and HIV receiving adequate treatment according to medical literature. After 40 days of hospitalization, negative serology for both Syphilis and HIV.

Conclusion: Early and timely detection together with correct treatment is vital, the objective is to achieve control and cure of the disease, preventing its complications and sequelae in both mother and child.

KEYWORDS: syphilis, serology, AZT: Zidovudine, 3TC: Lamivudine, NVP: Nevirapine

INTRODUCTION

Syphilis is a sexually transmitted disease whose etiologic agent is a spirochete called Treponema Pallidum. During pregnancy it can cause problems for the fetus, including miscarriage, premature birth including death before and after birth (2 out of 5 born to untreated women with syphilis die of infection). Receiving early treatment helps protect both mother and child.

According to the WHO, there are annually around 100,000 deaths as a result of gestational syphilis (fetal or miscarriage). Between 164,000 - 344,000 children are born with congenital syphilis in Latin America and the Caribbean. Of these 8n 60-90% are asymptomatic, the rest are symptomatic and with a diversity of clinical manifestations.

The following is a clinical case analysis of a symptomatic late preterm newborn with positive serological analyzes who receive treatment until their respective negative result together with clinical resolution of their complications.

METHODOLOGY

A clinical case analysis study of a newborn patient with congenital syphilis caused by vertical transmission was performed.

The information obtained rests on the Word computer system and the image of the person who carried out the study and follow-up of the clinical case.

CLINICAL CASE PRESENTATION

Pregnant, multiparous, four pregnancies, history of 2 abortions. He was kept on routine checks. At 30 weeks gestation positive VDRL test, she received no treatment. Postpartum VDRL Positive agglutination, requesting FTA ABS Indirect immunofluorescence with reactive result $1\,+\,/\,5$; plus HIV Immunochromatography reagent.

Dad: VDRL Agglutination Reactive, FTA ABS Indirect Immunofluorescence: 1 + / 6, Syphilis Electro chemiluminescence: 209,300, HIV Non-reactive immuno chromatography.

Newborn, premature at 35 weeks gestation (estimated by Capurro Test), normal delivery, apgar: 7-7, weight: 1965 grams.

It was decided to enter the Neonatology Service.

As positive signs and symptoms to physical examination:

Inspection:

Respiratory: SatO2: 88% at 3 liters per mustache, nasal flutter, intercostal drainage, thoraco-abdominal, subcostal and xiphoid retractions (Score 3 Downes scale) deciding to switch to oxygen by HOOD.

Skin: Generalized jaundice including sclera, in the palmar and plantar region, scaly lesions with a reddish pemphigoid-like background, approximate diameter lxlcm with erythematous halo without continuity.

Palpation:

Abdomen: Hepatomegaly 1 finger under the rib margin.

Auscultation:

Chest: Rhythmic heart sounds, slightly split R2. Vesicular murmur present, preserved, few bilateral rails. Tachypnea: 80 /minute.

Diagnosis is established:

Late premature
Low birth weight
Respiratory difficulty
Intrautero decrease restriction
Sepsis
Discard Congenital Syphilis

Complementary exam results:

Blood Group: ORh Negative

Biometry at 6 hours of life: Leukocytosis: 42,580, Neutrophilia: 41.6%, Hemoglobin: $16.4\,\mathrm{g}$ /dl, Hematocrit: 48%

Liver tests: Total Bilirubin: 5.50 mg / dl, Direct Bilirubin: 1.03 mg / dl, Indirect Bilirubin: 4.47 mg / dl

Infectious: Quantitative PCR: positive +++

Ultrasensitive Quantitative PCR: 26.54 mg / dl (normal between 0-19)

Procalcitonin: 1.32 ng/ml

VDRL Agglutination: reagent

VDRL Immunology Agglutination: blood reagent with 1: 4 titration

VDRL in Cerebrospinal Fluid: Nonreactive. HIV Immunochromatography 1-2 qualitative: Reactive.

With these results, the patient was maintained with a HOOD camera, phototherapy, and antibiotic treatment with Penicillin G 50,000 IU was started every 12 hours for 10 days. A patient transfer was made to the Specialty Hospital to continue with viral load studies and adequate treatment.

Tests were carried out on: TORCH: Negatives

FTA-ABS Indirect immunofluorescence: Positive

Perinatal exposure protocol of the Ministry of Public Health was started with antiretrovirals:

AZT $4 \, \text{mg/kg/day IV}$ for $28 \, \text{days}$ 3TC $2 \, \text{mg/kg/day IV}$ for $28 \, \text{days}$

NVP 2 mg / kg / day PO 1st dose, 2nd dose 48h, 3rd dose 96 hours after the second dose.

In compliance with the therapeutic scheme, the patient presented respiratory distress (Downes 5), deciding on non-invasive mechanical ventilation (CPAP), adding an antibiotic scheme with Amikacin 27 milligrams IV every day + Ampicillin 90 milligrams IV every 12 hours. Subsequently, positive blood cultures with development of Staphylococcus haemolyticus resistant oxacillin strain, deciding to rotate the antibiotic scheme to Vancomycin 28.5 milligrams IV for 10 days associated with isolation measures.

After 8 days, CPAP was weaned at 2 liters of O2 per nasal cannula having good tolerance (SatO2: 90%), progressively presented good oral tolerance with exclusive formula and remained stable until tolerance of the nasal cannula to bubbling with SatO2: 91%.

After 40 days of hospitalization, skin lesions have disappeared, non-treponemal and negative treponemal tests; In addition, an RNA-DNA viral load count for HIV with an undetected Log10: 0 result and negative reagents for infection.

It was decided to discharge the patient at home with close monitoring + exclusive breast milk 65 cc every 3 hours + TMP SMZ 7 milligrams PO every 12 hours 3 times a week.



Image 1: Scaly syphilitic pemphigoid-like lesions on the soles of the patient's feet.



Image 2: Chest Rx (no signs of osteochondritis)

DISCUSSION

Sexually transmitted disease, caused by Treponema Pallidum. In the case of congenital syphilis, the highest rate is that of vertical transmission (transmission to the fetus through the placenta), and a lower percentage is due to infection in the birth canal and relationship with breastfeeding.

An early diagnosis in pregnancy is important for proper treatment and the presence of trained professionals to reduce both natal and postnatal complications.

Carriers of congenital syphilis are mostly asymptomatic. In the treatment, benzathine Penicillin G has achieved the best efficacy rates.

CONCLUSION

In Latin America syphilis in pregnancy has a high percentage compared to the rest of the world.

It is a vertically transmitted disease, with a high risk of congenital syphilis when the mother does not receive treatment or it is not carried out properly.

When having a positive diagnosis of maternal infection, antibiotic treatment should be started immediately and tests should be carried out to determine if there is fetal involvement. After birth, the child and mother will be closely monitored with their respective treatment.

Finally and very important to highlight the need for gestational controls by trained professionals and to have health centers that guarantee the correct management of these pathologies.

REFERENCES:

- Dobson S. Congenital Syphilis: clinical features and diagnosis. Uptodate. 2016. p. 906.
- Walker GJA, Walker DG, Berman SM, Woods CR, Desperthes BD, Meheus A, et al. Congenital syphilis: a continuing but neglected problem. Semin Fetal Neonatal Med. 2007 Jun;12(3):198–206.

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- Pan American Health Organization (PAHO). 2010 Situation Analysis: Elimination of Mother-to-Child Transmission of HIV and Congenital Syphilis.
- 2011.47 p.

 OPS., UNICEF. Iniciativa Regional para la Eliminación de la Transmisión Maternoinfantil del VIH y de la Sífilis Congénita en América Latina y el
- Bowen V, Su.J, Torrone E, Kidd S, Weinstock H. Increase in Incidence of Congenital Syphilis — United States, 2012–2014. Vol. 64, MMWR. Morbidity and mortality weekly report. 2015.
 Pérez Gutiérrez • F. Sífilis Congénita. 1979; (467):87–91.
- Sexual S, Its-vih RPN. MINISTERIO DE SALUD PÚBLICA Autoridades. 2013;
- 8. Samalvides, Frine; Banda C. Sífilis en la gestación. Rev Peru Ginecol y Obstet. 2010;56:202–8. Forero N, Peña M. Enfoque global de la sífilis congénita. Rev Med UIS.
- 9. 2011;24(2):201-16.
- 10. Lynn WA, Lightman S. Syphilis and HIV: A dangerous combination. Lancet Infect Dis. 2004;4(7):456-66.
- Ruvinsky R, Bruno M. Consenso de infecciones perinatales: Infecciones perinatales bacterianas. Soc Argentina Pediatr. 1999;97(3):147–54.
 Grupo EI de TS, Salud IN de. Protocolo de Vigilancia en Salud Pública
- Grupo L. de I.S., Salud IN de. Protocolo de Vigilancia en Salud Publica SIFILIS GESTACIONAL Y SIFILIS CONGENITA. 2015;3-40. Available from: http://manizalessalud.com/wp-content/uploads/2015/06/PRO-Sifilis-Gestacional-y-Congenita-Version-2-Feb-2015.pdf
 Morales TMRC. Técnicas no treponémicas Diagnóstico Serológico de Sífilis.
- 14. Ingvaldsen JE, ??zg??bek ??zlem, Gulla JA. Context-aware user-driven news recommendation. CEUR Workshop Proc. 2015;1542:33-6.