



Pseudoparalysis of Parrot: High Index of Suspicion, The Key for Diagnosis

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Introduction

Congenital Syphilis (CS) is the first congenital infection recognized and described since 1497. Parrot in 1866 described the clinical variant of congenital syphilis that bears his name and is characterized by periostitis with pseudoparalysis [1].

Despite wide understanding of the disease, the identification of the *Treponema pallidum* (TP), the development of diagnostic tests and its ease of treatment with penicillin, CS remains a major public health problem [1-3].

Unfortunately, the incidence of CS has increased in the last decade, rising its complications and the rate of CS [1-3]. Worldwide, new estimates published today show that there were more than half a million (around 661,000) total cases of congenital syphilis in 2016, resulting in over 200,000 stillbirths and neonatal deaths [4].

According to data from 78 Provincial and Municipal establishments and a National Hospital in Buenos Aires province, for the year 2016, the prevalence of congenital syphilis was 2.2% [5].

We present a case of CS with musculoskeletal manifestations in order to reflect on the path until the diagnosis was reached. Early recognition might be hampered if physicians do not consider CS as a possible diagnosis.

Case: A 37-day-old female infant whose disease onset was pain and flaccid paralysis of the upper limbs over the last week; neither history of trauma or fever and without diagnosis suspicion was referred to a more complex hospital for diagnosis and treatment.

Background

Inadequate prenatal care, negative maternal serology in the 3rd trimester (HIV, Toxoplasmosis, VDRL).

Physical exam

Good general condition, without dysmorphism, vigorous sucking, markedly decreased spontaneous movement of the upper limbs (Figure 1), crying on active movement; lower limbs with adequate motility and preserved reflexes.

Complementary studies are requested to rule out infectious diseases, trauma, central nervous system lesions, neuromuscular diseases and perinatal serology for routine screening (Table 1 and Figure 2, 3). A CS diagnosis is made. The patient was treated with parental Penicillin; after 10 days

Table 1: Complementary studies carried out.

Ophthalmological exam: Normal
Abdominal ultrasound: Normal. (Liver and spleen were not involved)
MRI of brain and spinal cord: Normal
Electrophysiological study: Normal
Cerebrospinal fluid: Normal
Botulinum toxin: Negative.
Toxoplasmosis, Herpes, Rubella, CMV and HIV: Negative
Paired mother/son samples: VDRL positive.*
X-rays of the long bones: Detachment and rarefaction of the humeral epiphyses.

*The finding of an infant's serum quantitative non-treponemal titer that is four-fold higher than the maternal titer is confirmatory of CS

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Figure 1: Pseudoparalysis.

Syphilitic Musculoskeletal Manifestations (MSKM) remains rare. However, they should be kept in mind because of the current recrudescence of the disease and because of their frequently misleading expression which contributed, among other syphilitic manifestations, to make the disease earn the name “great simulator.” Syphilitic MSKM are mainly related to the hematogenous dissemination of TP. The main lesions are bone involvement (osteochondritis, periostitis and osteitis) and joint involvement, the pattern of which is in keeping with the clinical presentation of the disease; involvement of muscles, tendons, as well as bursitis, although rare, has also been reported. Skeletal manifestations are present radiographically in >95% of symptomatic and 25% of asymptomatic CS infants [3,8].

Parenteral penicillin G remains as the only antibiotic capable of preventing MTCT and CS [1,3,7].

After discharge, an infant is followed every 2 to 3 months with repeat non treponemal titers; those who are adequately treated should have a four-fold decrease in non-treponemal titers within 6 months and become non-reactive by 12 months.

Physical exam, VDRL and simple X-rays, available in any hospital or health care setting were the main tools for diagnosis, leaving out the need of complex studies.

CS remains a major public health problem and requires a high index of suspicion. Focus on prevention of CS is important but it must start with understanding of the socioeconomic inequities that

of treatment, she was discharged with no pain and full recovery [6,7].

Discussion

Early CS is diagnosed when children develop manifestations of disease within the first 2 years of life [3]. These reflect the inflammatory process taking place at one or many of the organs that became affected during the transplacental infection [6].

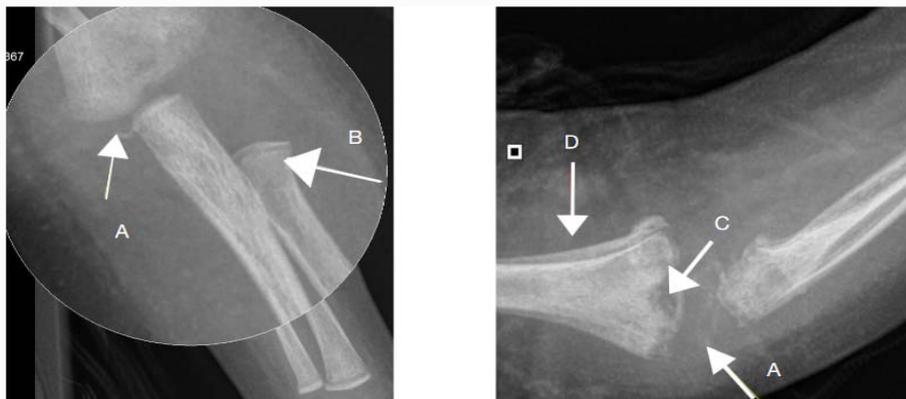


Figure 2: (A). Metaphyseal osteochondritis. (B). Metaphyseal bands. (C). Metaphyseal osteitis. (D). Periostitis.

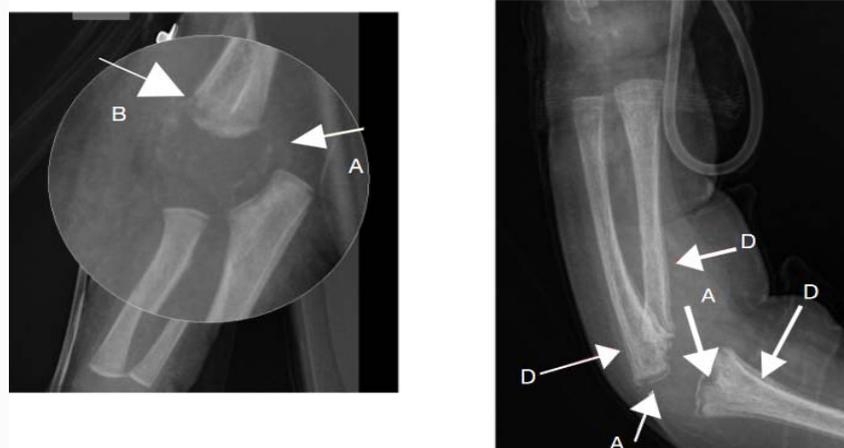


Figure 3: (A). Metaphyseal osteochondritis. (B). Metaphyseal bands. (C) Metaphyseal osteitis. (D). Periostitis.

place young women at risk for acquiring syphilis [1,3].

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