# CONGENITAL SYPHILIS A CASE REPORT

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## ABSTRACT

Syphilis is one of the few transplacentally acquired bacterial infection that is preventable and treatable. Fetal transmission risks are directly related to severity of maternal spirochetemia and duration of the disease. Early diagnosis should be the first aim in a suspected individual. This report presents a stillbirth case at 25 gestational weeks which was affected from the maternal syphilis.

**Key Words:** Syphilis, Stillbirth.

## INTRODUCTION

Syphilis is a complex, chronic, sexually transmitted disease caused by organism treponema pallidum, which is mostly seen in the reproductive years of human life and leads to many congenital consequences in infected individual's offsprings. Congenital syphilis is a truly disseminated infection and characteristic histologic signs can be found in virtually every fetal organ system. Though early maternal infection can be treatable and usually healed without any sequelae, fetal effects of the disease are hazardous and almost untreatable. This article describes a congenital syphilis infection which revealed itself as an intra-uterine exitus.

## CASE REPORT

A 26-year-old nullipar woman who was five months pregnant was admitted to our hospital's dermatology clinic with complaints of itching, redness and burning sensation in her perineal region for the last two months. In her physical examination only a few erythamatous papules on inner aspect of labium majora were remarkable but in oral cavity, multiple popular lesions on hard and soft pallate and mucous patches on dorsum of the tongue were present. Additionally populosquamous red lesions on the palms of the patient's hands were seen with careful inspection.

Unfortunately obstetric ultrasonography revealed a fetus without any cardiac activity with dimensional parameters suitable for 22,5 weeks of gestation. Neither any gross anomaly nor causative defect had been determined in the general appearance of the fetus in sonography.

The heamatologic values for blood coagulation and complete blood cell count were in normal ranges. The non specific tests VDRL and RPR titers were 1/64, 1/8 respectively. The specific TPHA test was at 1/1280 titers that seemed to be positive for syphilis. Her HIV serology was negative. Based on the clinical findings and serology described, the patient was hospitalized with the diagnosis of secondary syphilis. Aqueous crystalline penicillin G 1,2 million units intravenously for ten days with a single dose of benzathine penicillin G 2, 4 million units intramuscular as a single dose was administered.

As the case was an intrauterine demise, extra amniotic rivanol was applied for the termination. A female fetus of 540 grams with 0/0 apgar scores was delivered on the second day of hospitalization. The fetal autopsy findings had no clues for congenital

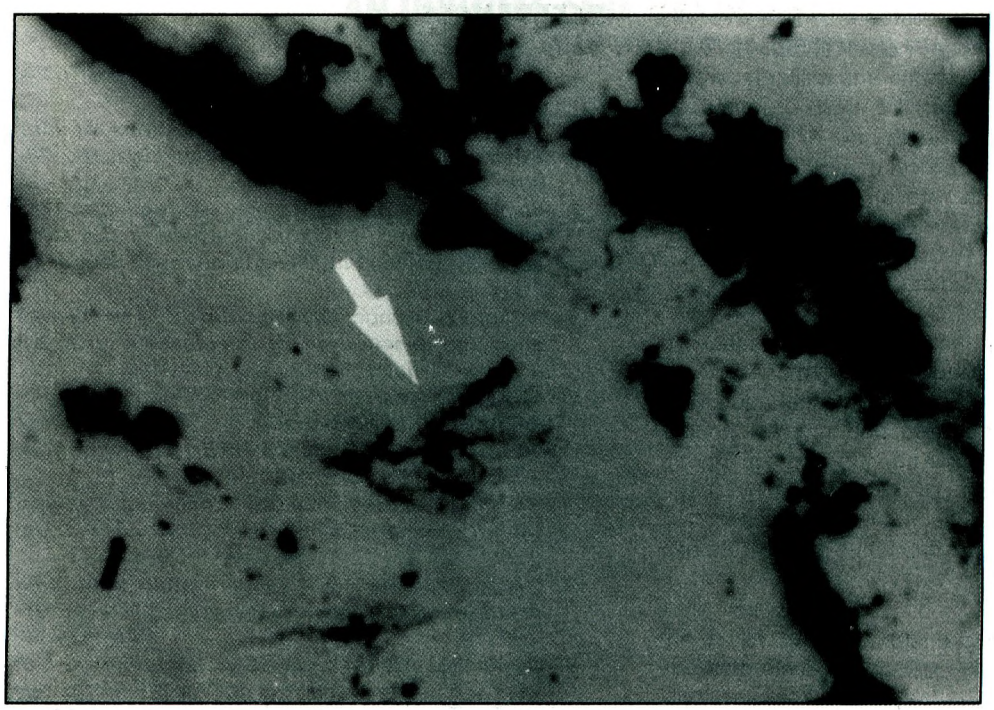

***Fig. 1:*** Treponemal bodies were demonstrated with Warthin Starry staining

anomalies. Nevertheless, treponemal bodies were demonstrated with Warthin Starry staining on tissue specimens which revealed congenital infection(Fig 1).

The patient was discharged without any complication after completing the antibiotic therapy regimen.

## DISCUSSION

In the past, syphilis accounted for nearly a third of stillbirths and indeed the delivery of macerated fetuses was considered to be a sign for the diagnosis of the infection with treponema pallidum. Syphilis has a smaller but persistent role in the genesis of fetal deaths currently and as emphasized by the Centers for Disease Control the number of cases of congenital infection increased by 150 percent from 1978 through 1985. The causative organism Treponema Pallidum can cross the placenta and infect the fetus throughout the pregnancy with the degree of risk related to the quantity of spirochetes in the maternal blood stream (1). However fetal involvement is rare before 18 weeks owing to fetal immuno incompetance. After 18 weeks the fetus is able to mount an immunologic response and tissue damage may occur. In the early pregnancy, the fetus is exposed to more severe fetal infection and the risk of premature delivery or stillbirth is great. Primary and secondary maternal syphilis is associated with a 50% probability of causing congenital syphilis and a 50% rate of perinatal death compared to the 40% risk of congenital syphilis and a 20% mortality rate of the early syphilis (2).

Fetal infection has broad spectrum of clinical presentation from apparent signs and symptoms of both early and late congenital syphilis to neonatal death and stillbirth. Congenital early syphilis presents itself with systemic symptoms like hepatosplenomegaly, anemia, jaundice, maculopapular rash, osteochondritis and chorioretinitis. Though late congenital syphilis shows infestation with systemic symptoms and manifestations, it has more specific stigmatas like mullbery molars, Hutchinson's teeth, saddle nose and interstitia keratitis as well (3). Neonatal death and stillbirth occur more frequently in the primary and secondary stages of the disease.

Congenital syphilitic infants are usually of low birth weight, mostly due to preterm delivery. Severe fetoplacental infection can lead to fetal death, but the pathopyhsiology of this process is unclear(4). Significant adverse effects of syphilis in pregnancy was confirmed by a report of Ricci et al (5). In this study, 56 congenital syphilis cases were identified from a total number of 30361 deliveries during a thirty month period between years 1986-1988. One third of the cases were stillbirths and two thirds of the live

born infants were clinically infected. The overall perinatal mortality rate was 464 per 1000 births and the proportion of neonatal deaths and stillbirths were 27% to 73%. Thus a report of 1985 from CDC concluded a 30% neonatal death and 70% stillbirths which supported the data of Ricci et al(6). Halter et al reported 20-50% stillbirth rate among congenitally infected infants. However the reason for intrauterine demise was obscure because of the possible association between drug abuse and syphilis(7).

Over the past 5 years an increase in the incidence of syphilis has been reported in the United States, coincident with this increase in congenital cases(8). Because of the lack of proper documentation and surveillance of patients in our country, the severity of the disease is unknown but, the trend is to increase. Intrauterine fetal losses must be carefully investigated and veneral diseases as a causative reason should be ruled out in each case.

Education concerning the preventive value of prenatal care in high risk groups is essential. All pregnant women should undergo a routine serologic test for syphilis at the first visit. The test should be repeated between 28-32 weeks of gestation. Syphilis is still a serious public health problem. Teaching young people about the disease and its consequences is still the best method of control.

## REFERENCES


1. *Turner LH. Leptospirosis. Br Med J 1973;1:537-540.*
2. *Fiumara NJ, Lessel S. Manifestations of late congenital syphilis. Arch Dermatol 1978;102:78-80.*
3. *Ingall D, Norrins L. Syphilis. In:Remington FS, Klein JO, eds: Infectious diseases of the fetus and newborn infant. Philedelphia;WB Saunders, 1976.*
4. *Parker CR, Wendel GD. The effects of syphilis on endocrine function of the fetoplacental unit. Am J Obstet Gynecol 1988;159:1327-1329.*
5. *Ricci J, Fojaco R, O, Sullivan M. Congenital syphilis: The University of Miami Jackson Memorial Medical Center Experience, 1986/1988:Obs Gyn 1989;74:687-693.*
6. *Center for Disease Control. Congenital Syphilis-United States, 1983-85. JAMA 1986;256:3206-3208.*
7. *Halter CA, Benirsche K. Fetal syphilis in the first trimester. Am J Obstet Gynecol 1976;124:705-708.*
8. *Rolfs RT, Nakoshima AK. Epidemiology of primary and secondary syphilis in United States, 1981 through 1989. JAMA 1990;264:1432-1435.*