Sepsis is a central cause of morbidity and mortality among newborn infants. Neonatal sepsis is a clinical syndrome occurring within the first 28 days of life and is manifested by systemic signs of infection and diagnosed by isolation of a bacterial pathogen from the bloodstream. Group B Streptococcus (GBS; Streptococcus agalactiae) is the most frequent cause of neonatal invasive disease and is classified by age at onset. Early-onset GBS generally presents at birth or within 24 hours, but can occur through the first 6 days of life. Its incidence is 0.25 cases per 1000 live births. Late-onset GBS presents between day 7 and 8 [1-3]. Recurrent GBS infections are infrequent, with reported incidences ranging from 1% to 6%. They usually represent persistent mucosal colonization, but are occasionally due to re-infection [4]. Treatment for recurrent infection is recommended to be continued for one week longer than the usual course, but there are no data indicating its effectiveness [5].

**PATIENT DESCRIPTION**

A neonate was born to a 26-year-old mother and 32-year-old father (first pregnancy/first birth) who were second-degree relatives, both of Druze origin. The medical history of the father was unremarkable. During pregnancy, the mother presented with recurrent severe urinary tract infections due to congenital bilateral hydronephrosis, with ureteral constriction. She was treated with second-generation cephalosporin, and was advised to continue treatment with nitrofurantoin until the end of pregnancy. On one occasion, urine culture demonstrated GBS.

During pregnancy, due to religious beliefs, no ultrasound scans were performed. The child was delivered by cesarean section at 37 weeks because of placenta previa. There were no complications during surgery. Apgar score was 8 and 9 at minutes 1 and 5, respectively; umbilical pH 7.31, weight 3230 grams. The first physical examination was normal, except for tachypnea and grunting. The neonate received oxygen for a few hours and his condition improved. Partial sepsis workup was normal, complete blood count was normal, and C-reactive protein was not elevated. Chest X-ray demonstrated transient tachypnea of the newborn. A repeat chest X-ray showed improvement. No antibiotics were administered. At 26 hours, he developed hyperbilirubinemia; bilirubin was 15.4 mg/dl on the fourth day. He was treated with phototherapy and was discharged with bilirubin 10.4 mg/dl at 5 days of age. Before discharge, the infant was vaccinated against hepatitis B, as per standard practice. At home, the infant was fed breast milk. Circumcision was at 14 days of age. On day 18, the baby was admitted to the hospital due to a fever of 39.4°C. Lumbar puncture (LP) demonstrated 5 cells, normal glucose and protein, negative culture. Complete blood count was normal without leukocytosis. Urine, through a catheter, revealed no leukocytes, erythrocytes, or nitrites. Culture was negative. Chest X-ray was normal.

Blood culture (BACTECTM FX system, BD Diagnostics, Sparks, MD, USA) demonstrated GBS, detected using MALDI-TOF MS (Bruker Daltonics, Bremen, Germany) after growing on blood agar (BD Diagnostics). Antibiotic susceptibility tests were performed according to the Clinical & Laboratory Standards Institute guidelines for ampicillin, using the Etest method (bioMérieux, Durham, NC, USA). The resulting minimum inhibitory concentration was 0.047 mg/L (susceptible).

The neonate was treated with intravenous ampicillin for 10 days and with third-generation cephalosporin for the first 3 days until GBS was demonstrated in the blood culture. Blood culture was negative after 3 days of treatment. The infant was discharged after 10 days. On day 35, he was admitted again with a fever of 39.4°C. This time, physical examination demonstrated right torticollis and an enlarged red, swollen, and tender cervical lymph node. Blood culture demonstrated GBS again. LP was normal. At this point, the workup was expanded to identify the source of infection.

The possibility of ineffective treatment during the first course of antibiotics was considered; however, to the best of our knowledge, there have been no reports of reduced susceptibility of GBS to
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COMMENT

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The supreme accomplishment is to blur the line between work and play.
Arnold Joseph Toynbee (1868–1975), British historian, research professor of international history at the London School of Economics and King's College London