Brucellosis is a zoonotic infectious disease that arises from Brucella type bacteria. The infection is transmitted to humans through the consumption of unpasteurized milk, direct contact with infected animals. Congenital brucellosis occurs using trans-placental transmission due to maternal infection during pregnancy or ingestion of the contaminated maternal secretions during birth and breastfeeding. The diagnosis of brucellosis is made by culture or serology. In this article, the case of a premature infant with congenital brucellosis presumed to be acquired trans-placental transmission is reported because of the rarity of such cases. We should note that preventive procedures should be taken to protect pregnant women living in high-risk areas where brucellosis is endemic.

**Keywords:** Brucellosis; intrauterine infection; preterm newborn.
were negative. In peripheral blood smear, 60% lymphocytes, 35% polymorphonuclear leukocytes and 4% monocytes were detected. Early-stage sepsis was suspected, and blood and urine cultures were obtained, then, treatment with ampicillin (150 mg/kg/d) and amikacin (15 mg/kg/d) was started.

On the 5th day, *Brucella melitensis* was grown in the blood culture and his antibiotherapy was switched to gentamicin (4 mg/kg/day for 14 days), rifampicin (15 mg/kg/day as single daily doses for 42 days) and cefotaxime (150 mg/kg/day for 42 days). *Brucella* tube agglutination was positive at 1/80 titer. The patient underwent lumbar puncture, cerebrospinal fluid culture was obtained and any bacterial growth was not observed. Transthoracic echocardiography was performed and was reported as normal. Hepatosplenomegaly was not observed in whole abdomen ultrasonography. When the patient’s history was obtained in detail, the family did not deal with animal husbandry, but they consumed cheese manufactured in rural areas continuously. The mother, who had congenital *brucellosis*, was referred to the infectious diseases clinic. The family screening was performed.

*Brucellosis* tube agglutination test was found to be positive at 1/320 titer and the mother was started on treatment for *brucellosis*. Breastfeeding was stopped and blood and milk cultures were obtained from the mother. *Brucella* tube agglutination test was found to be positive at 1/1280 titer in his 7-year-old brother and treatment was started. Any bacterial growth was not detected in the control of blood culture and after completion of 6-week-long treatment, the patient was discharged.

**Discussion**

The incidence of *brucellosis* in pregnant women is not known since routine screening is not performed during the prenatal follow-up period in endemic areas [9]. In our country, 6.1% of the cases of *brucellosis* in Eastern Anatolia consist of pregnant women; the frequency of spontaneous abortion, intrauterine death and premature birth in pregnant women with *brucellosis* has been reported to be 24.1%, 3.4% and 6.9%, respectively [10]. In pregnant women, *Brucella* infection causes serious morbidity, such as abortion, intrauterine death and preterm birth. Experimentally, an oxytocin-like endotoxin that induces abortion in *brucellosis* has been reported to increase the frequency and intensity of uterine contractions [3, 11]. In recent years, a small number of cases of congenital *brucellosis* with the intrauterine transmission have been reported [12, 13]. Giannacopoulos et al. [12] reported that *brucellosis* was detected in the 27*th*-day-old baby of the mother who was treated for *brucellosis* during pregnancy and indicated that transplacental transmission occurred because the baby was fed only with formula milk after birth and the case was accepted as congenital *brucellosis*. Ceylan et al. [14] reported a case of newborn *brucellosis* that was thought to be transmitted by breast milk. The presence of *brucellosis* was investigated in both the mother and her baby, who was born at the 28th gestational week because of insufficient weight gain at the age of three weeks and a history of *brucellosis* in the mother during the last month of pregnancy. As a result of this examination, *Brucella* tube agglutination tests (1/1280, 1/640 and 1/160, respectively) were found to be positive in breast serum, breast milk and infant serum. With these findings, exacerbation of *brucellosis* in the mother was considered, breast feeding of the baby was discontinued and trimethoprim-sulfamethoxazole and rifampicin treatment was initiated in the baby who was diagnosed with *brucellosis*. Ceylan et al. reported that they discharged the baby in a healthy state after six weeks of treatment.

Our case was admitted to the neonatal intensive care unit for the investigation of sepsis and hyperbilirubinemia after the development of icteric sclera and skin on the 8th hour of the postnatal period when the baby was lying beside her febrile mother (38.4°). Early-stage sepsis was considered due to the high procalcitonin values in our patient's history and clinical findings, as well as laboratory investigations. Antibiotherapy was started and the patient’s treatment was changed to rifampicin, cefotaxime and gentamicin. Upon the detection of *brucellosis* in the baby, the mother of our case was also examined for *Brucella* infection and she was diagnosed with *brucellosis*.

Samples for milk and blood culture obtained from the mother were sent to the laboratory for three days, and treatment was started. However, any bacterial growth was not detected in the cultures. Since *Brucella* infection was detected in both the mother and the baby in our case, we believe that *B. Melitensis* was transmitted transplacentally from the mother.

We think that newborns are at risk for *Brucella* infection in the regions where *brucellosis* is endemic in our country. It is important for pregnant women to be warned about consumption of poorly cooked milk and dairy products in regions where *brucellosis* is widespread. Since *brucellosis* is still an important public health problem in developing countries, such as Turkey, *brucellosis* women of childbearing age in endemic regions, should be educ-
cated about transmission routes, clinical findings, complications and treatment of brucellosis and pregnant women should be included in screening programs.

Brucellosis, which is a common disease in our country, may present with different clinical manifestations. Since the clinical presentation of mothers infected with brucellosis may be very different, mothers should be questioned in detail, and it should be kept in mind that brucellosis may present only with jaundice in endemic countries. Brucellosis should also be considered in the differential diagnosis as a rare disease in patients with early sepsis.

**Informed Consent:** Written informed consent was obtained from the parents of the patient for the publication of the case report.

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**Conflict of Interest:** None declared.


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**References**