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Neonatal Jaundice and Splenic Hematoma

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In the newborn period, unconjugated hyperbilirubinemia (UHB) is common, multifactoral, and associated with a variety of physiologic and pathologic conditions. The most commonly identified pathologic cause leading to hyperbilirubinemia is hemolytic disease of the newborn. We report a five-days-old female infant with neonatal jaundice secondary to splenic hematoma.

Key words: *Unconjugated hyperbilirubinemia, splenic hematoma, newborn.*

In the newborn period, unconjugated hyperbilirubinemia (UHB) is common. Extravascular blood collections also lead to hyperbilirubinemia because of the excess bilirubin production. Usual sites for such substantial collections of blood in term infants are cephal hematoma and the space beneath the galeal aponeurosis(1,2). Splenic hematoma is an unusual event in newborn babies, and presents with an acute onset(3). We report a five days old newborn infant with splenic hematoma with subacute onset and UHB who needed exchange transfusion.

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Case Report

A five-day-old female infant was brought to our hospital with complaints of jaundice, which became apparent on the second day of life. She was born to unrelated parents at 36 weeks of gestation with a birth weight 2800 g (25th percentile) after an uneventful pregnancy and parturition. Prenatal history was normal and the mother had no infections, medications or trauma during pregnancy.

On physical examination, the baby was active and comfortable. Her vital signs were stable. The weight was 2610 g height was 50 cm and head circumference was 33 cm. The child was icteric. Rest of the physical examination was normal.

Blood type and Rh definitions of patient and mother revealed no incompatibility. On admission complete blood count was in normal limits. Peripheral blood smear and reticuloctye

count were not remarkable for hemolysis. All laboratory investigations including total protein, albumin, liver and kidney function tests; thyroid hormone tests were normal except total bilirubin of 27 g/dL with a direct bilirubin 1.5 g/dL. An exchange transfusion was performed.

Glucose-6-phosphate dehydrogenase (G6PD) and pyruvate kinase screening were normal, VDRL test was negative. Blood and urine cultures were negative. Urinalysis, serum and urine amino acids and organic acid measurements were normal. PT was 13 seconds, PTT 39 seconds, fibrinogen: 232 g/L, antithrombin-3 74.1%, protein-C 42.5%, proteins 91.2%, bleeding time 4 minutes. Cranial ultrasonography was normal but abdominal ultrasonography (performed at the fourth day of hospital stay) revealed a mass with 2 cm diameter at inferior pole of spleen, which had cystic components with heterogeneous echogenity, strongly suggesting subcortical hematoma. Abdominal CT scan sptenic hematoma (*Fig. 1*).

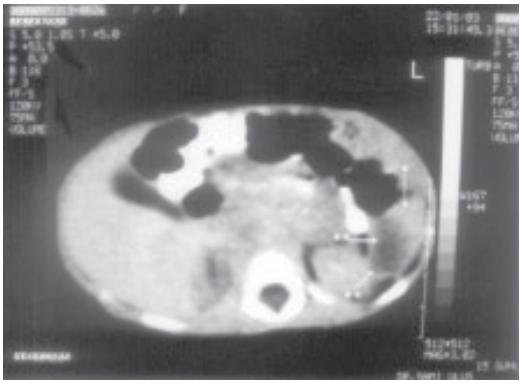

Fig. 1. Post contrast CT shows a low-attenuated lesion in the spleen that measures 30-40 HU.

Baby was discharged at 12 days age and abdominal CT scan at three months of age revealed normal spleen. Her development was appropriate for age.

Discussion

An elevation of serum bilirubin concentration is often detected during the first several days of life. Sixty five percent of newborn are clinically jaundiced. The most known pathologic causes of neonatal hyperhyperbilirubinemia(1,2) including ABO incompatibility, Rh isoimmunization, infection, excessive bruising, infant of diabetic mother, polycythemia, G6PD deficiency, pyruvate kinase deficiency, congenital spherocytosis and subdural/ cephal hematoma were all ruled out in our case. Cranial and abdominal ultrasound and abdominal CT were performed since sequestration of blood within body cavities can also result in increased bilirubin production. Splenic hematoma is rare event in newborns. Causes of splenic hematoma include traumatic delivery (*e.g.,* macrosomic fetus, breech delivery), congenital coagulopathies (*e.g.,* hemophilia A and B), congenital afibrinogenemia, mothers using enzyme inducing antiepileptic drugs that may cause bleeding in the newborn by altering vitamin K metabolism. Antiepileptic drugs such as phenobarbital, phenytoin, and carbamazepine cross the placenta and increase the rate of oxidative degradation of vitamin K in the fetus(2), and splenic rupture associated with splenomegaly in neonates has been reported in cases of erythroblastosis fetalis(5). In our patient all these causes were ruled out. A traumatic delivery history was not noted. The cause of splenic hematoma for this patient remained obscure, although spontaneous splenic hemorrhage in neonates has been reported(5). The issue whether splenic hematoma of such size as in our patient could be cause of hyperbilirubinemia is a debate. It could be speculated that it was larger in size before diagnosis, which resolved by time, or, since spleen is an organ with rich blood supply;

even this hematoma might cause hyperbilirubinemia.

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Fluoxetine Withdrawal Syndrome in the Newborn

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A term baby was admitted to our neonatal unit with jitteriness, hypertonia, sneezing and fever. Her mother was on 20 mg of fluoxetine throughout her pregnancy. These symptoms which were possibly due to fluoxetine withdrawal lasted only for a short while. We attempt to look at the reported prevalence of this condition in the literature.

Key words: *Fluoxetine withdrawal, Neonate, SSRI withdrawal.*

Selective Serotonin Re-uptake Inhibitors (SSRI's) such as fluoxetine are increasingly being used to treat depression in pregnant women as they are shown to be relatively harmless to the developing fetus. However, symptoms of SSRI withdrawal have been occasionally reported. Here we describe a neonate who presented with symptoms possibly due to fluoxetine withdrawal.

Case report

A term infant was born with a birth weight of 3200 g to a 28-year-old mother. The APGAR scores were 9 at 1 and 5 minutes and

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