

Fellows Column: Brown Reducible Mass at the Base of Umbilical Cord in a Newborn Infant

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Summary:

A newborn is presented here, who was noted to have a brown, reducible small mass at the base of the umbilical cord. A pathological assessment revealed the diagnosis.

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Case:

The infant was born to a 27-year-old Gravida 2, Para 1001 mother at 36 4/7 weeks gestation. The pregnancy was complicated

by late prenatal care. Maternal history was insignificant for any abnormal labs. The Apgar score was 8 and 9 at one and five minutes, respectively. The infant was transferred to the newborn nursery, where, on examination, the umbilical cord was noted to have a pinkish tinge with brown tissue inside the Wharton's jelly (Figure A-C). The infant was transferred to NICU, where, after surgical consultation, an exploratory laparotomy was performed. The infant had normal abdominal imaging and a normal echocardiogram. In the OR, the brown mass in the cord was noted to be attached to the liver, later confirmed by pathology as liver tissue. The infant remained stable post-operatively and started on feeds, which he tolerated well. The infant was discharged home on day nine of life with close follow-up.

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Figure 1

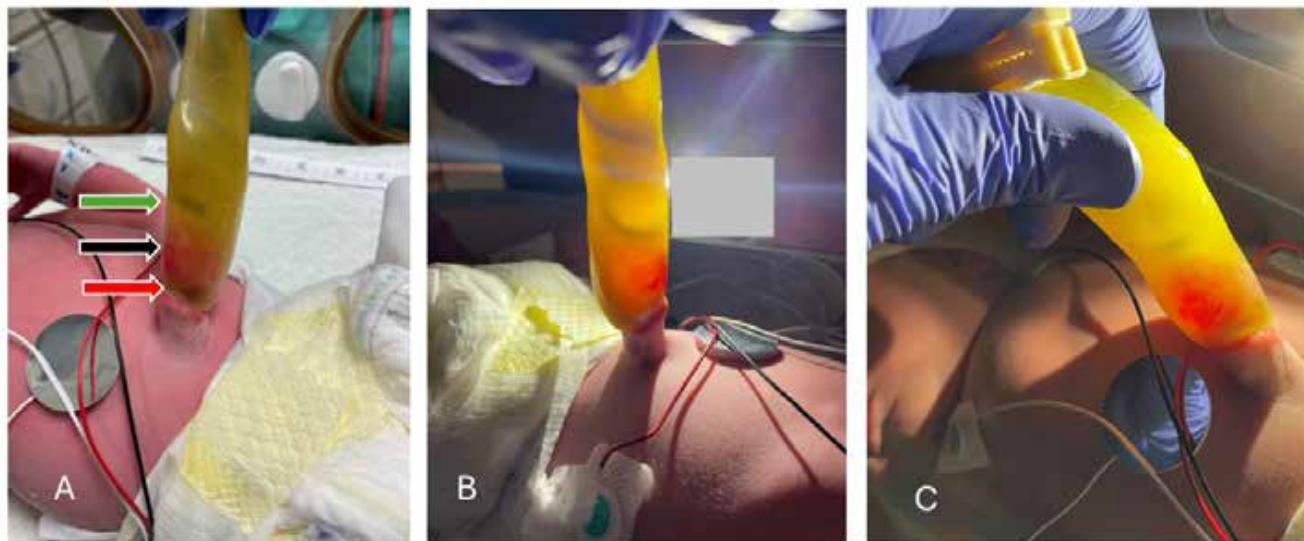


Figure 1:

A: Umbilical cord showing three findings

Legend comments:

Green arrow – Umbilical vein,

Black arrow – The light pink area is a bruise on the cord.

Red arrow – The dark area was the liver segment, which acted like it was reducible but was adhered to the inside of the cord but effectively pushed it into the abdomen.

B: Transillumination umbilical cord showing the normal tortuous course of umbilical vessels

C: Transillumination showing the pink area (bruise)

Figure 2



Figure 2:
A Intraoperative picture

Figure 2

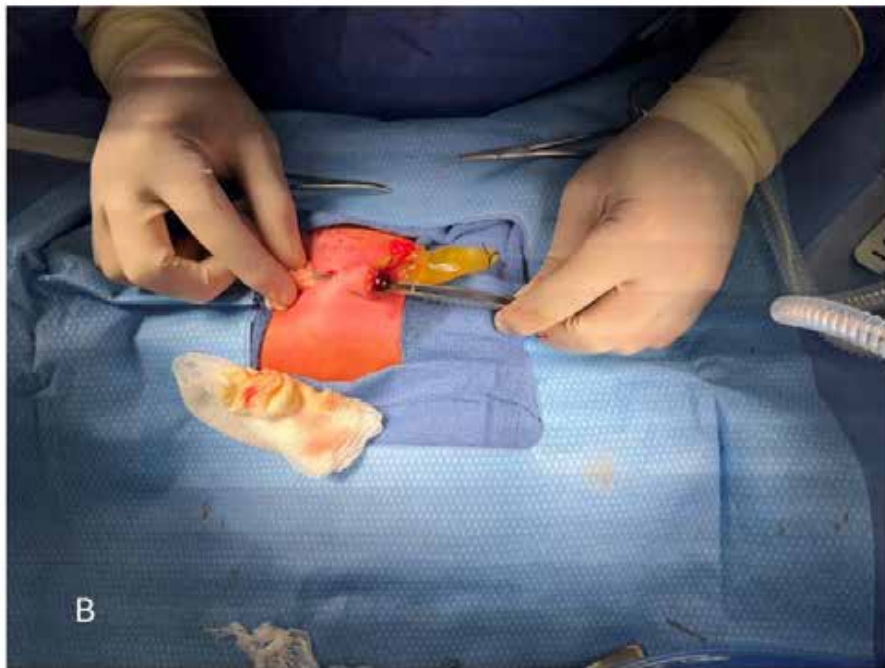


Figure 2:
B Intraoperative picture

Figure 2

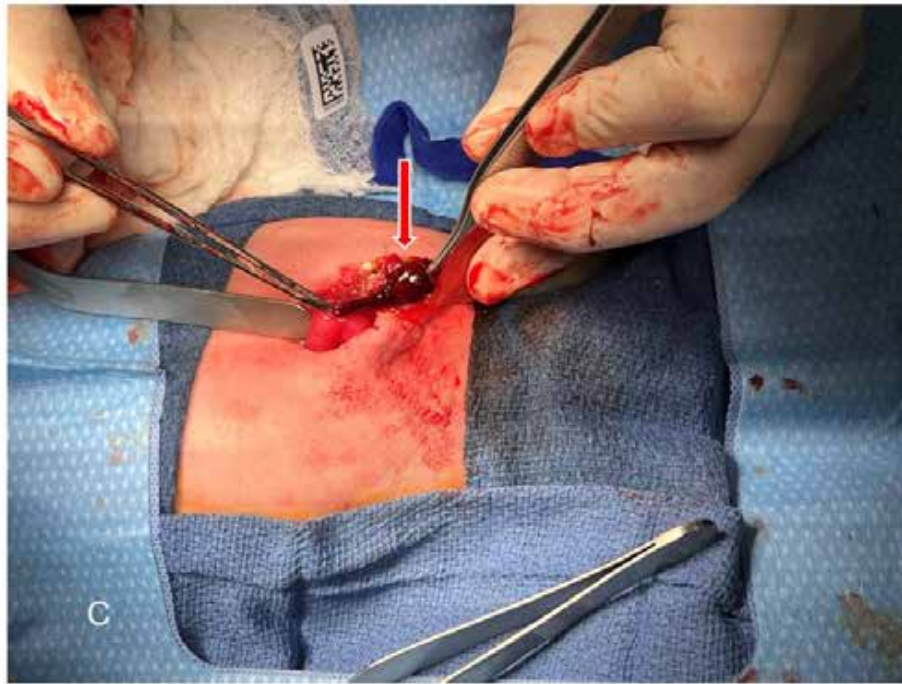


Figure 2:

C Intraoperative pictures

Figure C - The red arrow showed that the part of the liver (confirmed by pathology) in the cord was on a pedicle stalk and likely was a fetal lobule.

“In conclusion, any discoloration noted on the umbilical cord in a neonate should be further evaluated. The umbilical cord should be clamped carefully above the lesion in such cases.”

Discussion:

Earlier, Brandtner et al. (1) reported a similar case but with a larger liver herniation in the umbilical cord. Similarly, Mili et al. (2) reported a case of liver herniation in the cord with the gall bladder. Caudate of the liver was found in the cord in the case of a female newborn infant. (3) A similar case has been reported in Japan, with an accessory liver in the umbilical cord. (4) Lara-Díaz et al. (5) reported ectopic liver within the umbilical cord in a preterm infant. In a report from Iraq, a heterotopic liver was found in the umbilical cord of a term male infant. (6)

Due to late prenatal care, the diagnosis was not made before birth. However, anomalies related to the umbilical cord could be diagnosed antenatally. (7)

In conclusion, any discoloration noted on the umbilical cord in a neonate should be further evaluated. The umbilical cord should be

clamped carefully above the lesion in such cases.

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Author contribution: Dr. Patel, Dr. Fontenot, Dr. Boykin, Dr. Tucker, and Dr. Manzar conceptualized the case study and wrote the draft.

Funding and financial support: None

Conflict of interest: No conflict of interest is noted.

Disclosure: The authors have no conflicts of interests to disclose.

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