

EP16.62. AMNIOTIC BAND SYNDROME IN ANOMALOUS PLACENTAL INSERTION: A CASE REPORT.

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Introduction

Amniotic Band Syndrome (ABS) is a rare congenital disorder, 1 in 10,000 to 15,000 pregnancies [1,2], which etiology remains unknown with no sex predominance and more commonly found in women of Afro-Caribbean descent. It accounts for 1-2% of congenital malformations with no known hereditary pattern; most cases appear sporadically, with no recurrence. [3]. The term “syndrome” is used for ABS, however, it is controversial as there are no defining or consistent characteristics [4].

Method:

A retrospective, cross-sectional, observational study was conducted: Case Report.

Case Presentation

Female 33-year-old 1 abortion, 2 C-sections, no history of congenital defects, infection or chronic diseases, is referred at 24 W. with a sonography report: Presence of intracranial herniation due to a left frontoparietal cranial defect with displacement of the midline and brain structures. Partially visible face, with apparent integrity of the right hemiface. Cephalic pole in contact with the placenta that remains static to mechanical stimulation, No other apparent alterations, 169 FHR; Placental insertion alteration covering the internal cervical os, with multiple venous lakes. Subsequent evaluation: absence of fetal heart activity, in combination with the anomalous placental insertion, hysterectomy with fetus in situ was proposed. Findings at surgery: fetus without vitality, **amniotic band** with facial malformations, midline defect, absence the left orbit and nose, left frontoparietal encephalocele placenta covering the internal cervical os, presence of medusa head, bridge vessels. Histopathological report diagnosis of placenta accreta.

Conclusion

Amniotic band syndrome is a rare congenital abnormality with multiple and unique clinical presentations for each patient. In our reported case and the literature review, no causality of amniotic bands associated with placental insertion abnormalities was found, due to the lack of sufficient evidence to establish an association, nor any literature that reports cases with both amniotic bands and placenta previa. Therefore, it is important to continue presenting these initial lines of evidence to generate more significant research for such cases, as well as the importance of early diagnosis to establish the viability of the pregnancy and timely treatment. Due to the wide spectrum of variations in malformations and the possibility of their simultaneous occurrence, no two cases are identical.

Discussion and literature review

A rare case is presented of an amniotic band that goes from the placenta to the fetus in the cranial region with associated asymmetric craniofacial malformations.

The most widely accepted ABS theories are the intrinsic and extrinsic theories; the intrinsic, proposed by Streeter[5,6], suggests that the formation of amniotic bands has a common origin resulting from a disruption during the formation of the germinal disc in early embryonic stages and knowing that placenta previa is a condition in which placentation occurs in the poorly vascularized uterine segment, leading to poor uteroplacental perfusion and pathological histological changes, including an increase in fibrin deposition.

The presence of greater fibrin deposits during the development of the placenta, hypoperfusion because of abnormal placental insertion could contribute to the formation of fibrous bands that could compromise the fetus and its development [7]

Theory of amnion disruption proposed the amnion rupture or detachment and partial or total emergence of the fetus towards the extraembryonic celom, forming a mesodermal fibrous bands between the outer side of the chorion and the amnion, which may cause developmental alterations (constrictions and/or amputations, as well as secondary facial clefts[8,9].

The severity of amniotic band sequence ranges from mild to fetal death. Defects may range from isolated and unique defects to multiple ones, without following a specific pattern. It is essential to identify this type of alteration, starting from ultrasound findings, which may include multiple fetal anomalies, particularly amputations and asymmetric constrictions of limbs and fingers, suggesting an amniotic band sequence, craniofacial abnormalities may include a single orbital defect, severe clefts not fitting into a developmental cleft pattern, severe nasal deformities, or asymmetric encephaloceles. Thoracic and abdominal wall defects, the less frequent ones. The visualization of the bands is not necessary to suggest the diagnosis [5,10].

References:



Figure 1. Left frontoparietal cranial defect.

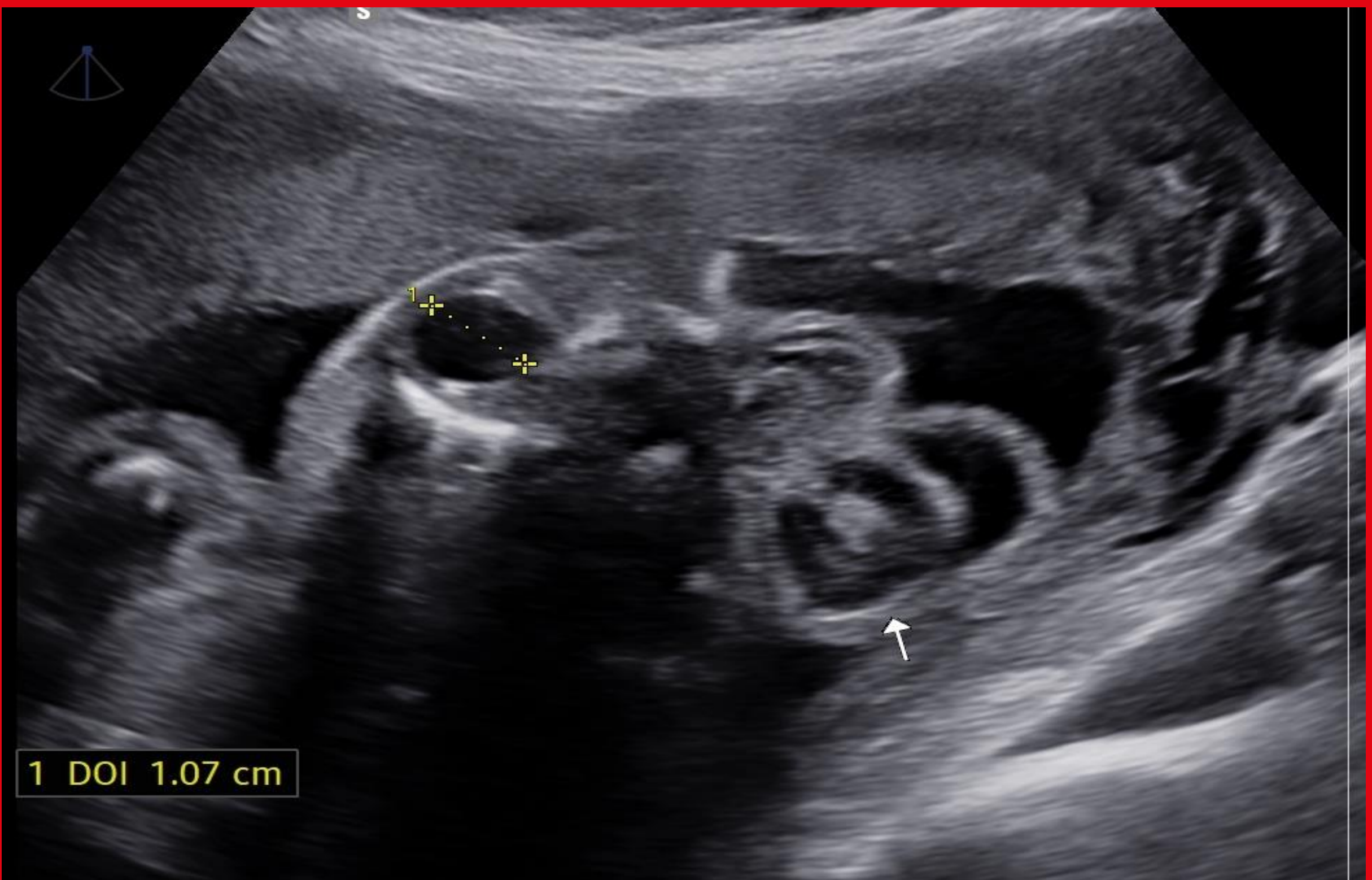


Figure 2. Craniofacial defect secondary to amniotic band

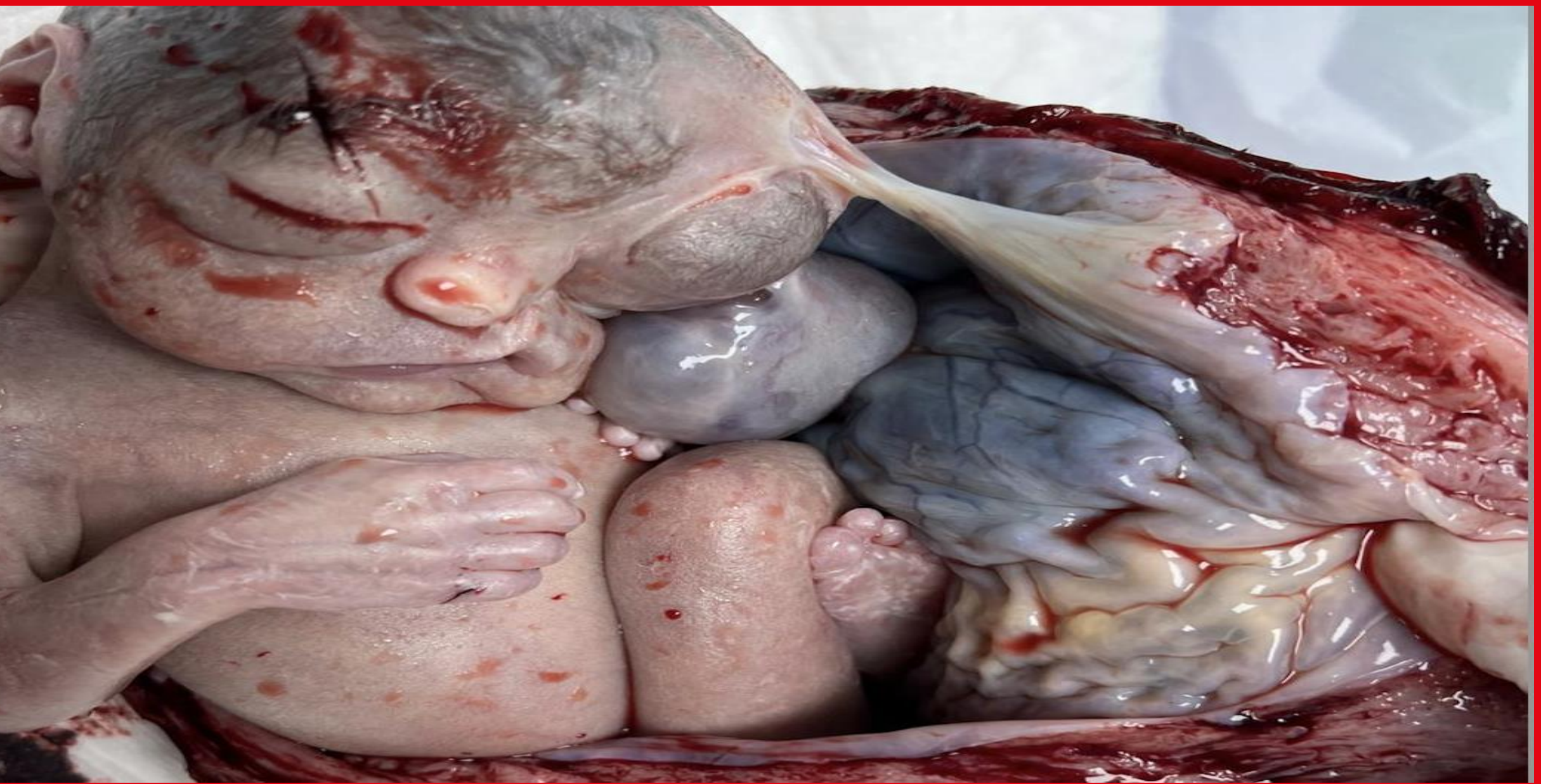


Figure 3. After cesarean-hysterectomy, macroscopic observation of the amniotic band.