

# CASE REPORT: AMNIOTIC BAND SYNDROME

## BACKGROUND

Amniotic band syndrome (ABS) encompasses the complications occurring from free strands of amniotic tissue in utero that may constrict foetal or cord components, leading to deformities or intrauterine foetal death (IUFD).<sup>1</sup> ABS is rare, with an incidence of 1 in 1,200 to 1 in 15,000 live births, and typically identified on antenatal ultrasound or during postnatal neonatal examination.<sup>1</sup> As the cause remains unknown, the risk of recurrence is unlikely.<sup>1</sup>

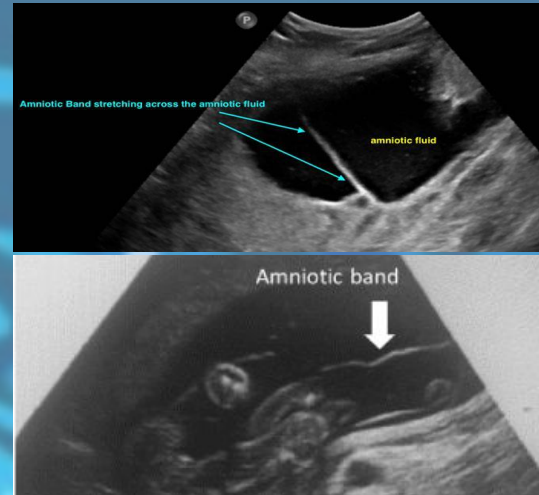


Figure 1. Examples of ABS on ultrasound

## CASE

A 25-year-old G2P1 presented at k21 with 48 hours of reduced foetal movements on a background of a pregnancy conceived via in vitro fertilization due to maternal endometriosis. She previously had a term vaginal delivery associated with multiple postnatal foetal bowel surgeries. Otherwise, this pregnancy had been uncomplicated, having had a reassuring non-invasive prenatal test result and tertiary morphology ultrasound at k20. IUFD was confirmed after ultrasound failed to identify a foetal heart. The patient was subsequently induced and delivered at k21+2.

## RESULTS

Postnatal examination by a senior registrar identified amniotic bands over the right arm and left hand with constriction dents and blood blisters. The umbilical cord also demonstrated multiple tight membranes.

Placenta histopathology confirmed hypo-coiled umbilical cord with amniotic bands. Maternal bloods were positive for parvovirus IgG and IgM and activated protein C resistance (4.61). Otherwise, lupus screen, bile acids and cultures (genital, placenta, urine) were unremarkable.



Figure 2. Examples of constriction on limbs

## DISCUSSION

ABS, amongst other possible causes, contributed to foetal demise. Given the normal morphology one week prior, ABS was unlikely preventable. However, this case highlights the serious and possible acute nature of ABS. Future management recommendations include serial ultrasound surveillance with tertiary input and identifying and modifying potential risk factors (family history, smoking and drug use, invasive testing, maternal diabetes).

If identified on imaging antenatally, referral to a maternal foetal medicine specialist is recommended. Management thereafter ranges from conservative imaging to foetal surgery in utero or postnatally in the presence of severe limb constriction.<sup>2</sup>

## REFERENCES

1. UCSF Benioff Children's Hospitals [Internet]. San Francisco: UCSF [date unknown]. Amniotic Band Syndrome [cited 2022 Aug 16]. Available from: <https://fetus.ucsf.edu/amniotic-band-syndrome/>.
2. Johns Hopkins Medicine. Baltimore: Johns Hopkins Medicine [date unknown]. Amniotic Band Syndrome [cited 2022 Aug 16]. Available from: <https://www.hopkinsmedicine.org/health/conditions-and-diseases/amniotic-band-syndrome>.