Case report: low pulsatility index associated with intraplacental haematoma.
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Summary

• 30 year old G2P1 presented with incidental finding of extremely low pulsatility index (0.38 PI) of the umbilical artery.
• Subsequently required emergency caesarean section for fetal bradycardia.
• Microscopic examination of the placenta showed an intraplacental haematoma at the umbilical cord insertion site.

Discussion

Case presentation

A 30 year old G2P1 woman, presented after an incidental finding of umbilical artery PI of 0.38 (<1st centile) on an US at 32+3 weeks gestation, which was performed for cervical length (Figure 1). Growth parameters and other doppler measurements were appropriate; CTG was normal. Retrospectively, the patient described a decrease in fetal movements over the prior week.

Immediately after the US, a routine CTG showed an unprovoked fetal bradycardia and an emergency Caesarean section was performed. A live female infant weighing 1917g was delivered; Apgar scores 21 55 810; pH 7.16 (arterial), 7.33 (venous). Post operative course for mother and baby were unremarkable. Subsequent maternal infection screen, thrombophilia screen and fetal cytogenetic testing was normal. Histopathologic examination of the placenta showed an intraplacental haematoma involving the umbilical cord insertion site.

Conclusion

Very low umbilical artery PI may be associated with fetal compromise and close fetal surveillance is warranted.

References