

Introduction

Chorionic bump (CB) is a rare condition and uncommon finding on first trimester scans. It is occasionally seen in patients who underwent fertility treatment. It has a characteristic appearance of a convex bulge from the chorionic surface into the gestational sac (GS) and can pose a diagnostic dilemma as they can be misdiagnosed as missed miscarriage or subchorionic haematoma¹.

A 27-year-old woman in a same-sex relationship who conceived by IVF using donor sperm and egg presented at 5 weeks' gestation. Scan showed an apparent crown rump length (CRL) consistent with 7 weeks' gestation and apparent cardiac activity. She presented with vaginal bleeding 2 days later and imaging suggested an incomplete miscarriage with an irregular GS and yolk sac but no convincing fetal pole. Another scan one week later (6 weeks GA) showed a single live intrauterine pregnancy with a CRL corresponding to her embryo transfer dates. At the anterior aspect of the GS were three irregular convex soft tissue bulges with mobile internal echoes projecting from the chorionic surface into the GS. The diagnosis of CB was made. There was also a perisac bleed inferior to the GS. By the time of her nuchal scan at 13 weeks, the CB had resolved. Non-invasive prenatal testing was low risk for aneuploidy and morphology scan was normal. She is currently still pregnant and is due for her morphology scan soon.

Case Presentation



Figure 1: Ultrasound image at 6 weeks showing the yolk sac, fetal pole and chorionic bump

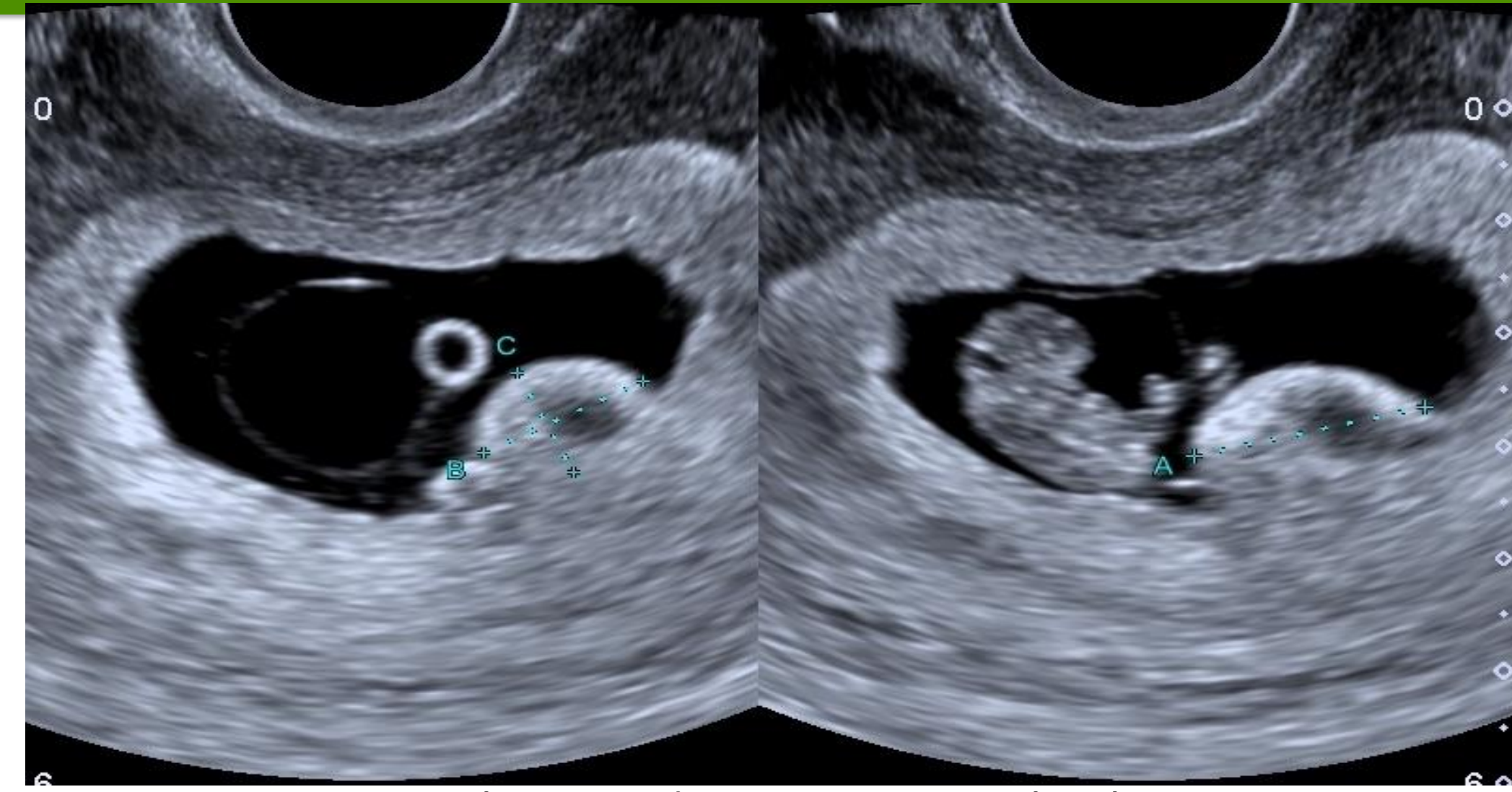


Figure 2: Ultrasound image at 8 weeks showing the yolk sac, fetal pole and the chorionic bump



Figure 3: Nuchal translucency scan at 13 weeks where the chorionic bump was no longer seen

Discussion

Earlier studies have found CB to be related to a higher risk of miscarriage, but latest available data suggests that most otherwise normal pregnancies result in a live birth^{1,2}. The aetiology of CB is unclear. It is thought that a haematoma in the decidual shell caused by increased bleeding tendency of the developing placenta can bulge into the GS and plays a role in the formation of CB³. It has a striking appearance but given its rarity can pose a diagnostic dilemma when seen for the first time. Serial ultrasounds should be offered to monitor embryonic growth and resolution of CB. Given the limited literature on the topic, reporting this case adds further information to the existing knowledge base to assist with counselling about pregnancy outcomes.

References

1. Sana, Y., Appiah, A., Davison, A., Nicolaides, K., Johns, J. and Ross, J., 2013. Clinical significance of first-trimester chorionic bumps: a matched case-control study. *Ultrasound in Obstetrics & Gynecology*, 42(5), pp.585-589.
2. Arleo, E. K., Dunning, A., & Troiano, R. N., 2015. Chorionic Bump in Pregnant Patients and Associated Live Birth Rate. *Journal of Ultrasound in Medicine*, 34(4), pp553-557.
3. McCarter K, Willson S, Shah N, *et al*. Chorionic bump in early pregnancy associated with first-trimester miscarriage. *BMJ Case Reports CP* 2020;**13**:e236624