

# Chorionic Bumps: A Potential Pitfall in Early Pregnancy Ultrasound

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A Chorionic Bump (CB) is an irregular, convex bulge extending from the choriodecidual surface into the gestation sac and is speculated to represent a haematoma. It is most commonly seen within the first trimester and can differ greatly in size and appearance, occasionally mimicking an embryo when small. The reported incidence of CB ranges between 1.5 - 7 per 1000 pregnancies and is often found incidentally.<sup>1</sup> Research is currently very limited and the significance of the finding in relation to pregnancy outcome is unclear. This poster demonstrates a case of CB within the first trimester and its varying appearance over time.

## Case study

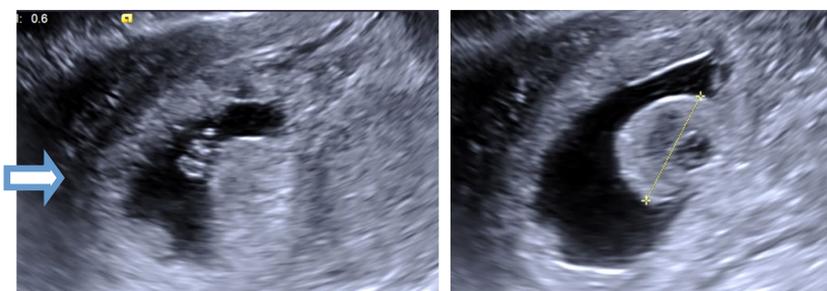
### <5 weeks

The patient presented with pain and per vaginal bleeding, expecting to be 7 weeks pregnant. The sonographer identified a 12mm rounded structure adjacent to the yolk sac with no heart pulsations present. It was thought that this may represent a demised embryo, however doubt remained and a follow-up scan was arranged a week later to reassess.



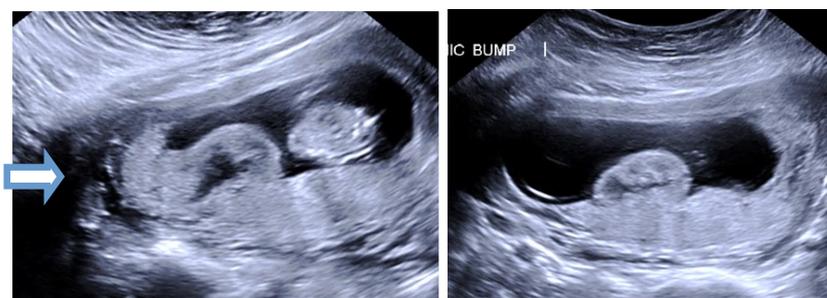
### 1 week later

An embryo measuring 4mm (equivalent to approximately 6 weeks gestation) was now evident with heart pulsations present. The previously seen 'rounded structure' could be identified separately and had grown in size, now demonstrating peripheral echogenicity with a hypoechoic centre; the classic appearance of a haematoma or 'chorionic bump' indenting the gestation sac wall.



### 13 weeks

The CB was still evident at the dating scan and could be seen arising from the developing placenta, as is the case in approximately 74% of pregnancies when seen at this gestation<sup>2</sup>.



The CB could not be identified at the 20 week scan and the pregnancy progressed normally with no further complications noted (e.g. bleeding).



## Significance

Some evidence suggests a guarded prognosis when CB is present; one study infers the live birth rate is <math><50\%</math><sup>3</sup> or the risk of miscarriage could even be doubled.<sup>1</sup> However, more recent studies have argued that the risk is overestimated<sup>4</sup> with no correlation found between the size of CBs and pregnancy loss.<sup>1, 5, 6</sup>

Further research suggests that whilst haematomas may be the source of most CBs, alternative aetiology may be responsible, such as hydropic placental villi in abnormal pregnancies (e.g. molar and trisomic pregnancies).<sup>7</sup> Therefore, there is the potential that CB could be linked to wide ranging complications and further prospective data from the general patient population is needed to better understand the significance of the finding and guide patient management.

## Conclusion

'Chorionic Bump' is an under-researched phenomenon in early pregnancy ultrasound. Although seen infrequently, CBs have a striking and characteristic appearance, but when seen for the first time they can present a diagnostic dilemma. The most important task for the sonographer is being aware of their typical appearances (particularly when small) and correctly differentiating them from an early embryonic demise.

## References

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