

Assessing hyperechoic amniotic fluid on ultrasound during the third trimester – a review article

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Background: In 1984, it was suggested that specific criteria could be used to differentiate between vernix caseosa, a benign finding, and meconium, a finding associated with many complications, when presented with homogeneous hyperechoic amniotic fluid on third trimester ultrasound. Since then, however, multiple case series have demonstrated patients with vernix caseosa are overtreated due to the concern of meconium, and multiple retrospective studies have shown similar frequencies of meconium in hyperechoic amniotic fluid and anechoic amniotic fluid.

Objective: The aim of this review was to compare the rates of meconium in hyperechoic amniotic fluid with rates of meconium in anechoic amniotic fluid to assess if the presence of meconium can be determined by echogenicity alone. **Methods:** A search was undertaken using PubMed, GoogleScholar and Scopus database for dates prior to May 2022. Search terms and phrases included: “hyperechoic amniotic fluid”, “echogenic amniotic fluid” “vernix” and “meconium”.

Results: This review of the literature shows rates of meconium in hyperechoic amniotic fluid are similar to rates of meconium in anechoic amniotic fluid. **Conclusion:** Changes to clinical management based solely on the change in echogenicity of amniotic fluid, including need for delivery, amniocentesis, or other additional screening assessments, are likely unnecessary.