Delivery venue dilemma: A case of maternal arrhythmia requiring continuous telemetry

Jil Decker, MD; Jack Peace, MD
Department of Anesthesiology
Temple University Lewis Katz School of Medicine

Background

- Parturients with clinically significant arrhythmias present a unique challenge for labor and delivery units.
- Often, L&D units are not equipped for continuous telemetry monitoring.
- This case demonstrates the one such patient, and the importance of an interdisciplinary team in their care

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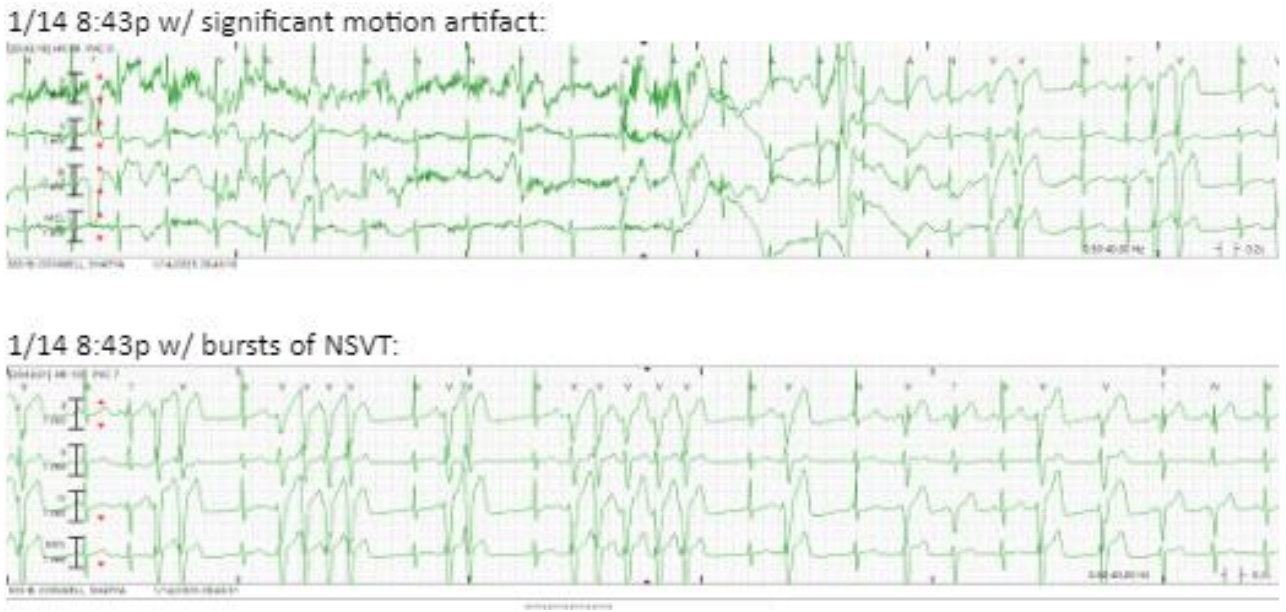
Case

- 41-year-old G6P5005 with a history of tracheal stenosis, non-ischemic cardiomyopathy with reduced ejection fraction, empty sella syndrome, and preeclampsia presented s/p syncopal episode
- Initial plan was for 24 hours of telemetry monitoring. Assuming there was no evidence of arrhythmia that could explain her syncope, she would then be transferred to L&D for an induction of labor at 37 weeks
- She was found to have several episodes of asymptomatic non-sustained ventricular tachycardia (Figure 1), and the cardiology team recommended she remain on telemetry during her induction and delivery
- It was clear that the patient should not deliver outside of L&D due to obstetric concerns, but telemetry was unavailable on L&D. After an interdisciplinary meeting, the patient underwent continuous 12-lead monitoring with periodic evaluations by the obstetrics team.



- Figure 1: Pre-delivery telemetry demonstrating episodes of non-sustained ventricular tachycardia (NSVT)

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Discussion

- Early identification of parturients with clinically significant arrhythmias is important, as well as determination of which of these patients absolutely require continuous telemetry during their delivery process.
- Ultimately, telemetry is a diagnostic and not a therapeutic modality, and the necessity of its use must be weighed against institutional capabilities and the patient's other needs.
- Parturients that are very high-risk will need to be considered for delivery in an ICU setting, while others may be candidates for a similar approach that we utilized here.
- Overall, clinically significant arrhythmias have been shown to be uncommon in parturients. [1] However, when questions about maternal arrhythmias arise, it is important to involve teams such as maternal-fetal medicine, cardiology, and obstetric anesthesiology early, in order to ensure the best possible multidisciplinary approach for the patient. [2]

References

1. Sharma, N., et. al. (2021). Abstract 13863: Incidence and clinical significance of cardiac arrhythmias during Labor. *Circulation*, *144*(Suppl_1).
2. Henry, D., et. al. (2016). Maternal arrhythmia and perinatal outcomes. Journal of Perinatology, 36(10), 823–827.

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