Brugada Syndrome in Pregnancy: A Multidisciplinary Approach

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Cause: genetic mutation (SCN5A, autosomal dominant with variable expression) in myocardial sodium ion channels

Presentation: palpitations, syncope, ventricular arrhythmias, sudden cardiac death

Diagnosis: Echo, 12 lead ECG, drug challenge

Management: expert consultation, avoid triggers, quinidine/amiodarone, ablation, ICD placement

Type 1 — Coved ST
Type 2 — Saddleback ST
Type 3 — Saddleback ST

Irregular heart rhythm (ventricular fibrillation)

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Case Presentation

History
- 35yo G2P1 @39 wks
- Diagnosed in the setting of febrile illness
- History of primary cesarean delivery with bupivacaine spinal anesthetic

Pre- Delivery Planning
- Normal echo
- Negative genetic testing
- Cardio-obstetric team
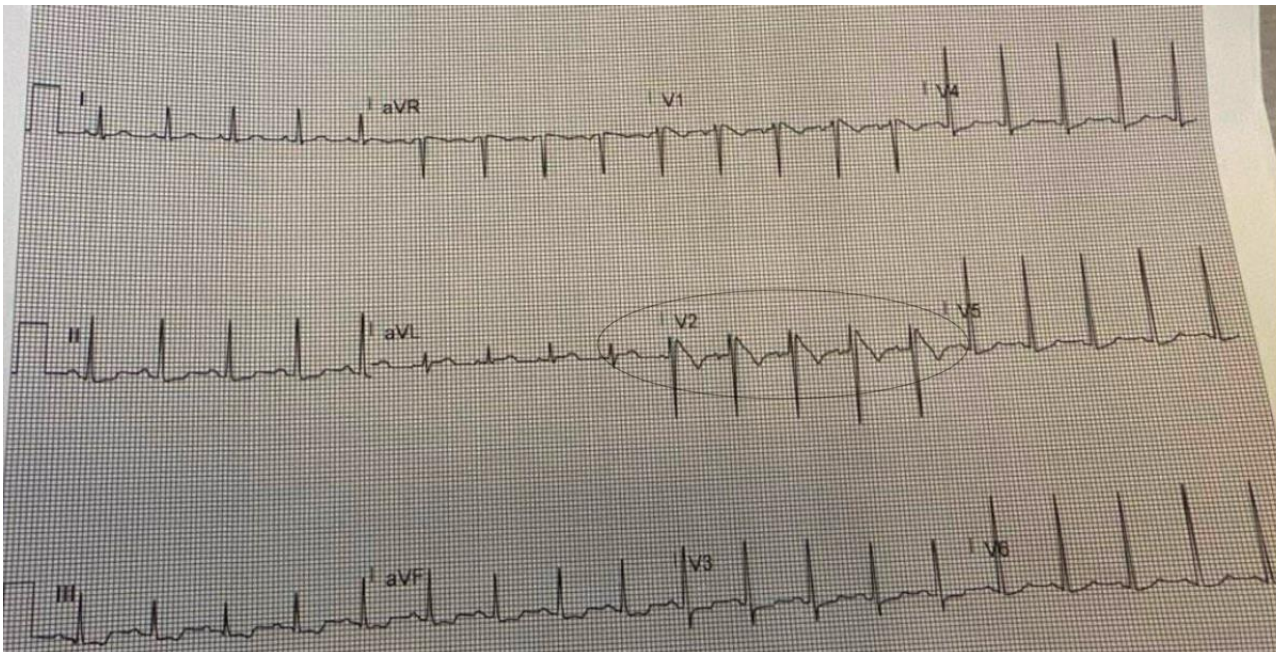- Desired TOLAC
- Cardiac care plan

Labor + Analgesia
- TOLAC w/ Ropivacaine and fentanyl epidural analgesia
- Uncomplicated placement
- Telemetry

Intrapartum Cesarean Delivery:
- 2% lidocaine with bicarbonate
- No arrhythmias
- Uncomplicated postpartum course w/ cardiology follow up

Common Brugada Triggers on L&D

Medications (medication induced Brugada):
- Propofol, diphenhydramine, acetylcholine, SSRI, TCA
- Delay oxytocin (ca release) and maintain at lowest possible dose

Safe Medications: ketorolac, opioids, N20, volatile gas, midazolam
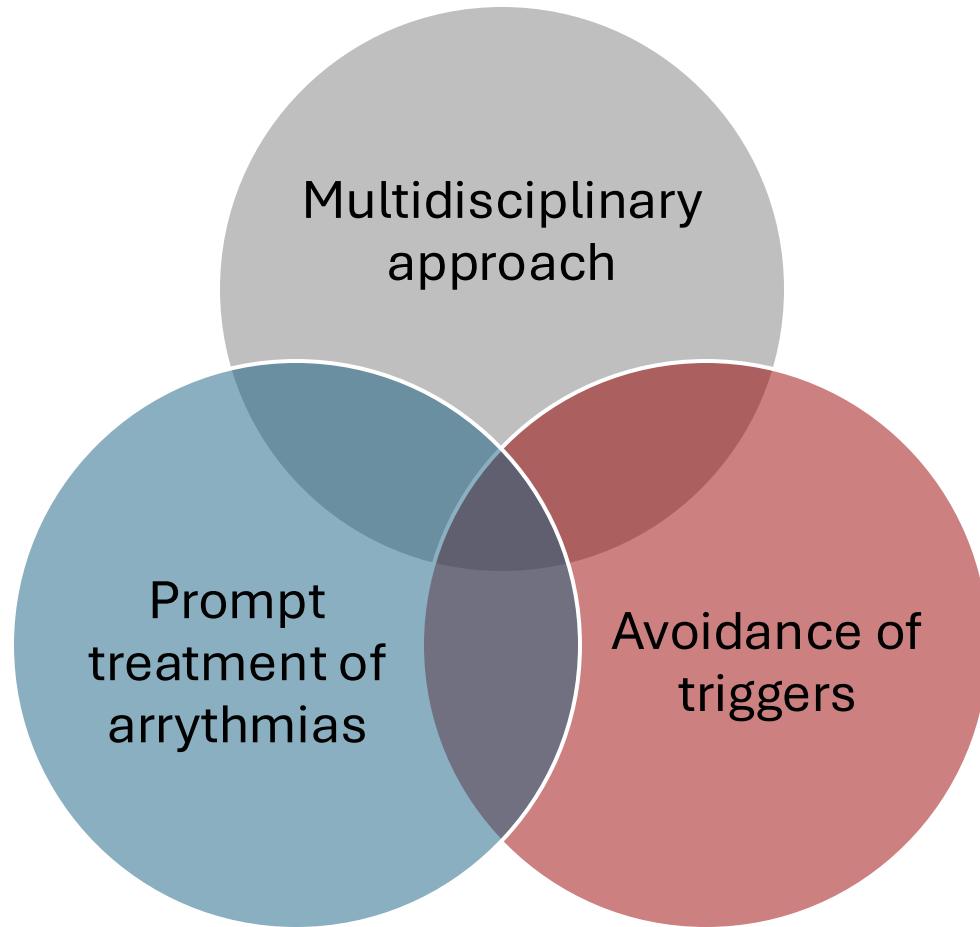
Hemodynamics:
- Hyperthermia, swings in BP, extremes of heart rate

Other
- Alcohol, stress, early AROM, Valsalva

For our patient, we wanted to aggressively avoid fever (known trigger)

Key Points

Multidisciplinary approach

Prompt treatment of arrythmias

Avoidance of triggers

BrugadaDrugs.org
Safe drug use and the Brugada syndrome

Treatment of arrhythmia on L&D

Medications:
- Isoproterenol, quinidine
- Checking all administered medications against brugadadrugs.org

Defibrillation/Cardioversion:
- AED pads
- Continuous peripartum telemetry
- ICD candidacy assessment