


Long QT Syndrome in an OB Patient with Spina Bifida

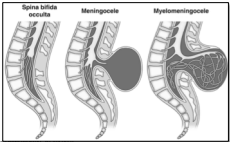
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CASE POSTED TO L&D

- Emergency Consultation**
 - Biophysical profile 2/10 (fluid)
 - Fetal tachycardia
 - 2 prior CS
- Spina bifida**
 - Myelomeningocele
 - Neural tube defects
 - Hydrocephalus
 - Neurogenic bladder
 - Autonomic dysfunction
 - Cardiac anomalies
 - Respiratory issues
 - Orthopedic issues
 - Renal issues
 - GI issues
 - Endocrine issues
 - Immunodeficiency
 - Psychiatric issues
 - Sexual dysfunction
 - Life expectancy
- Biophysical profile variables**
 - Non-stress test
 - Accelerations
 - Reactive
 - Normal CD
 - Fetal movements
 - Stress cardiomyopathy
 - Fetal tone
 - EF now normal
 - Amniotic fluid volume

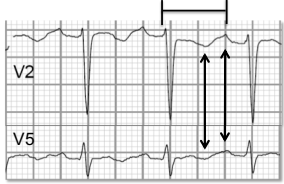


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EKG FINDINGS




Vent. Rate 98 BPM
QT/QTc 558/712 ms

Home Meds

- Furosemide
- Levothyroxine
- Metoprolol XL
- Omeprazole

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KNOW YOUR QT PROLONGING MEDS

- Sevoflurane, Desflurane
- Succinylcholine
- Propofol
- Anti-emetics
- Class II antiarrhythmics
- Ephedrine, Epinephrine, Phenylephrine
- ~~Adrenergics~~
- Droperidol
- Haloperidol
- Diphhydramine
- Famotidine
- Droperidol
- Oxytocin
- Albuterol
- Dexmedetomidine
- Macrolides, Fluoroquinolones, Metronidazole



PLANNING IS KEY

- | | | |
|---|--|---|
| Pre-op | Peri-op | Post-op |
| <ul style="list-style-type: none"> • β-blocker • Serum electrolytes • Anxiolysis | <ul style="list-style-type: none"> • TIVA or Regional • ↓ sympathetic responses • Avoid QT prolonging drugs | <ul style="list-style-type: none"> • ECG monitoring • Quiet environment • Adequate analgesia |

Likely safe: Midazolam, Fentanyl, Morphine, Propofol, Rocuronium, Local Anesthetics



BACK TO OUR CASE

Pre-op
 ECG strip showing prolonged QTc interval.

Discharge
 ECG strip showing improved QTc interval.

• Infant admitted to NICU
 - Respiratory distress syndrome
 - Initial QTc 528ms
 - QTc improved to 377ms



KEY POINTS

- Minimize patient's sympathetic responses
- Safe medications: benzodiazepines, fentanyl, morphine, propofol, local anesthetics, rocuronium
- Patient's with Long QT syndrome have unexpected variability in their QTc

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