

Mast cell activation syndrome and analgesic management in the parturient

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Case Presentation

- ▶ 19-year-old G1P0 at 39w1d with history of postural orthostatic tachycardia syndrome with dysautonomia, Ehlers-Danlos syndrome, and suspected mast cell activation syndrome was admitted for a scheduled induction of labor secondary to pre-eclampsia.
- ▶ She received neuraxial analgesia early in her labor to decrease the stress response associated with labor and delivery.
- ▶ Three epidurals were placed due to a positive test dose with her initial epidural and failure of her second epidural.
- ▶ She developed acute, non-radiating, back pain around her initial epidural site post- delivery. Physical examination was significant for point tenderness around epidural site and negative for sensory or motor deficits.
- ▶ Multimodal drug therapy was prescribed, however, her pain continued to worsen leading to the performance of an MRI to rule out an epidural hematoma which was negative.
- ▶ Potential causes of pain was evaluated, and it was determined that many of the medications being prescribed for pain control were potential mast cell triggers leading to hyperalgesia.
- ▶ Her medication regimen was adjusted along with consulting Neurology and Pain Management for further guidance.



Discussion

Mast Cell Activation Syndrome is a prevalent disorder that presents with multiorgan symptoms. Review of literature demonstrates little guidance on the anesthetic management of patients with MCAS.

This case illustrates the importance of recognizing mast cell triggers in not only the parturient, but all patients with MCAS, and the role of proper drug therapy to control pain.

Neuraxial anesthesia was utilized early during labor to minimize stressors that could activate mast cells. Post-delivery pain medications were adjusted after determining the patient's pain was likely worse with histamine triggering drugs.

Common anesthetic drugs associated with mast cell activation include tramadol, morphine, oxycodone, fentanyl, NSAIDs, topical lidocaine patch, atracurium, mivacurium, and vancomycin. Care should be taken in treating individuals with MCAS throughout the perioperative period.

All mast cell triggering agents were discontinued and the patient was discharged home with pain management follow up.