[NM-139] Pain Management Service Consult for Difficult PICU Pain Patient

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Abstract
A patient with metastatic osteosarcoma with multiple nodular wedge resections underwent a VATS procedure. After surgery, the patient remained intubated with escalating demands for sedatives, opioids, and paralytics. The Pediatric Pain Management Service (PPMS) was consulted and pain management alternatives were offered.

Case Report
Seventeen months PTA, a 19 year old patient was diagnosed with stage IV osteosarcoma of the right tibia with pulmonary metastasis. The patient was well controlled on Hydrocodone Bitartrate/Acetaminophen. Thereafter, the patient was started on chemotherapy. Twelve months PTA, the patient had a tumor resection, limb salvage procedures, left thoracotomy and the PPMS placed an epidural. On post-op day one a Hydromorphone PCA was added to the pain regimen and the patient was transitioned to Oxycodone/Acetaminophen. Ten months PTA, the patient underwent right thoracotomy and was again cared for by the PPMS with an epidural for three days and then transitioned to Oxycodone/Acetaminophen. Ten days PTA, the patient underwent another lobectomy and was followed by the PPMS with an epidural. After the epidural was removed, a Ketamine drip was started simultaneously with a Hydromorphone PCA. On post-operative day two the Ketamine drip was stopped and by post-operative day three, the patient was transitioned to oral Oxycodone/Acetaminophen.
Two days after discharge the patient underwent a VATS procedure. After surgery, the patient remained intubated in the PICU and required escalating administration of sedatives, opioids, and paralytics. At the PPMS consult, medications included: Methadone 72 mg/day, Diazepam 40 mg/day, Midazolam 96 mg/day, Hydromorphone 96 mg/day and Ketamine infusion at 30 mcg/kg/hour. The PPMS recommendations included starting a Dexmedetomidine infusion, adding clonidine, sparing opioid receptor techniques and considering opioid detoxification (general anesthesia with low dose opioid antagonists). The PICU faculty initiated a Dexmedetomidine drip with plans of transitioning to Fentanyl. Over the next 24 hours, the patient’s respiratory status deteriorated with failed frequency oscillator, nitric oxide, vital capacity trials, and BiVent ventilation. After a spiraling downward course and discussions with the family, the patient was made DNR.

Discussion
Frequently, the PPMS is asked to wean Heme/Onc and PICU patients from high dose sedatives/opioids consumption. This case highlights alternative choices offered to PICU faculty to care for patients requiring high dose sedatives/opioids. Our first suggestion was to add adjunct therapies (Dexmedetomidine and Clonidine), our second alternative was to use opioid receptor sparing techniques, and our third choice was for detoxification under general anesthesia.

References
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