

A CASE OF POSTOPERATIVE DELIRIUM IN A YOUNG, TRANSGENDER PATIENT

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Introduction

- Postoperative delirium affects up to 47% of surgical patients, representing a significant source of perioperative morbidity, mortality, and cost.
- The onset of delirium is typically noted in the PACU and is often managed with pain control and treatment of any metabolic disturbances.

Postop delirium characterized by:

- Acute onset fluctuating change in mental status
- Reduced awareness of the environment
- Disturbance of attention.

Case

- 20-year-old female-to-male transgender patient on testosterone therapy with PMH of asthma, depression, anxiety, PTSD, GERD, and tobacco use presented for elective placement of IUD in the OR.
- Induced with fentanyl, lidocaine, and propofol.
- LMA was placed, and general anesthesia was maintained with sevoflurane. Upon conclusion of the case, the LMA was removed, and the patient was transported to PACU with an oral airway in place.
- 12 minutes after arrival in the PACU, the patient became agitated and attempted to stand up in bed.
- Initially given lorazepam x2 without improvement of agitation.
- The patient was then sedated with propofol.
- 30 minutes later, the patient became agitated - treated with midazolam and dexmedetomidine, no effect.
- Sedated again with propofol – again agitated.
- Propofol given again 7x unsuccessfully.
- Patient required intubation w/ propofol and succinylcholine, taken to ICU.
- 3 days of repeated attempts to extubate until finally successful w/ no agitated behavior for the rest of hospital course.

Discussion

- This case is an unusual example of postoperative delirium: A young patient who was not initially identified as high risk for delirium.
- However, this patient experienced significant complications as a result of their delirium, representing additional emotional trauma and financial burden.
- It is unclear what, if any, role exogenous testosterone therapy may play in the development of postop delirium.
- As acceptance and visibility of transgender individuals increases, it is expected that more patients on exogenous hormone therapy will present for procedures requiring anesthesia care.
- In the future, anesthesiologists may consider alternative anesthetic plans for these patients.
- More research into the effect of hormone therapies on anesthetic practice and potential perioperative complications is needed.

Risk Factors for Postop Delirium

Preoperative

- Older age
- Cognitive impairment
- Depression
- Male sex
- Polypharmacy
- Tobacco and alcohol abuse

Intraoperative

- Cardiac surgery
- Orthopedic surgery
- Use of anticholinergics
- Use of benzodiazepines

Postoperative

- Hypoxia
- Hypocarbia
- Sepsis



References:

- Atlee, J. L., & Levin, P. (2007). Postoperative Delirium . In Complications in Anesthesia (pp. 888–889). essay, Elsevier/Saunders.
- Noimark, D. (2009). Predicting the onset of delirium in the post-operative patient. Age and Ageing, 38(4), 368–373.
- Rudolph, J. L., Jones, R. N., Rasmussen, L. S., Silverstein, J. H., Inouye, S. K., & Marcantonio, E. R. (2007). Independent vascular and cognitive risk factors for postoperative delirium. The American Journal of Medicine, 120(9), 807–813.