



EMERGENCE DELIRIUM AND POST TRAUMATIC STRESS DISORDER – AN EMERGING PATIENT GROUP

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ABSTRACT

Emergence delirium in the post-anaesthesia care unit (PACU) among patients experiencing PTSD is poorly investigated. In our PACU, we witnessed a particular pattern of emergence from anaesthesia in two different cases over a span of six months. Contrary to a normal agitation presentation, these women reexperienced the event of sexual assault after general anaesthesia, which mentally placed them in a frightful situation. A common denominator in all these patients was a history of sexual assault and likely posttraumatic stress disorder (PTSD).

KEYWORDS :

INTRODUCTION

The consequences of a sexual assault may be manifested biologically, psychologically, and sociologically. The lifetime prevalence of PTSD (post-traumatic stress disorder) for women who have been sexually assaulted is 50% (1). Moreover, sexual assault is the most frequent cause of PTSD in women, with one study reporting that 94% of women experienced PTSD symptoms during the first two weeks after an assault (2). Emergence delirium in the post-anaesthesia care unit (PACU) among patients experiencing PTSD is poorly investigated. In our PACU, we witnessed a particular pattern of emergence from anaesthesia in two different cases over a span of six months. Contrary to a normal agitation presentation, these women reexperienced the event of sexual assault after general anaesthesia, which mentally placed them in a frightful situation. A common denominator in all these patients was a history of sexual assault and likely posttraumatic stress disorder (PTSD).

Case 1.

A 26-year-old girl who underwent elective excision of a fibroadenoma in the breast, had a severe presentation of flashbacks in our PACU. She gave no history of any medications. The patient received midazolam, fentanyl, propofol, morphine, dexamethasone, and ondansetron intraoperatively. The patient had an uneventful operative anaesthetic course. During emergence from anaesthesia, the patient began to have flashbacks. She was convinced she was back in a situation where she was being sexually assaulted. The anaesthetists attempted to reorient the patient but were unsuccessful despite using her vernacular language. The patient was placed in a quiet area. At this point, the girl's parents were briefed on her status and were brought to the bedside in order to bring familiarity. It took almost an hour for the patient to emerge out of anaesthesia and get oriented to reality. The family later revealed a history of sexual assault on the patient.

Following our experience with this patient, a literature search was done to look for similar incidents and whether a correlation could be drawn between post traumatic stress disorder and emergence delirium following anaesthesia. Emergence agitation in the general population is characterized by restlessness and confusion.³ We however, experienced an emergence pattern which was contrary to the usual agitation phenomenon. Such a delirium can suddenly become dangerous and have serious consequences for the patient such as injury, increased pain, haemorrhage, self-extubation and removal of catheters requiring physical or chemical restraint. Lovstrand, et al argued that traditional modalities to reorient and calm patients experiencing emergence agitation who have PTSD are ineffective.⁴ They listed certain evidence driven interventions, and incorporated them in the management of such patients. It was concluded that the best practice includes a proper identification of

patients at risk of emergence agitation, a minimally stimulating environment, intraoperative sympatholytic therapy, and patient and staff education. With scanty evidence based research on this subject, we proceeded with incorporating Lovstrand et al's suggestions in the management of the second patient.

Case 2.

A 21-year-old girl presented for a preoperative assessment for elective vaginal reconstruction surgery. The patient had a history of sexual assault about a year ago, during which the patient had suffered several injuries over the external genitalia. There was no history of any pre-existing psychiatric disease or substance abuse. The patient was not on any medications. In view of our previous experience, we carefully evaluated the patient's behavior and body language. The girl showed generalized anxiousness and had a body language suggestive of mild hyper-arousal. We also gathered a positive history regarding nightmares of the episode of assault.

Keeping in mind the special needs of this patient, our three main goals in the anaesthetic management were to minimize any noxious stimuli, providing a positive and reassuring environment and optimal analgesia. Medications included Fentanyl, Propofol, Paracetamol and Clonidine. The operative site was infiltrated with 0.25% preservative free isobaric Bupivacaine. The same anaesthetist cared for the patient throughout the peri-operative course. The patient received balanced general anaesthesia. A deep extubation (part volatile anaesthetic gases and part intravenous anaesthetic agents) was performed. This reduced the risk of emergence delirium that is commonly observed with an awake extubation from total volatile anaesthetics. The PACU staff was informed before the arrival of the patient from the operating room. Family members were allowed to be at the bedside as soon as possible. The patient had an uneventful anaesthetic course and smooth emergence from anaesthesia.

DISCUSSION

Post traumatic stress disorder is an anxiety disorder. The classification in the Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition, Text Revision), or DSM-IV-TR, describes it as exposure to a traumatic event followed by a triad of symptom clusters. The triad includes re-experiencing, avoidance/numbing, and hyper-arousal.⁵ Understanding the implications of PTSD as it relates to anaesthesia is of great importance. There is lack of guidelines or evidence-based research on the management of PTSD patients during emergence from general anaesthesia. Additionally, psychological disorders, are not commonly identified by anaesthetists and surgeons as potential causes of complications. Hence, the diagnosis seldom appears on the medical history.⁵ The first step is to identify the patients at-risk. A history of trauma-related psychological disorders is the primary indicator. Demographic history, such as the patient's

age and profession can also guide the diagnosis. The history of medications often provides indicators. Psychiatric medications such as Selective Serotonin Reuptake Inhibitors (SSRI's) and Prazosin (used for persistent nightmares) should alert the anaesthetist.

Our framework begins preoperatively with a focus on reducing patient anxiety and providing a positive, calm, and reassuring environment. The anesthetist should be well aware of specific triggers to be avoided. Operating rooms typically have plenty of lights and are often noisy with equipment, instruments, monitors, phones, and continuous conversations. The area in this case should be exceptionally silent.

The methods used for treating PTSD in the out-patient setting are not available in the peri-operative setting. We must however, strive to incorporate the principle of consistency. Lovstrand, strongly suggested that the same anesthetist who performed the preoperative assessment also be the anesthesia provider during the procedure. The nurse who performed the nursing preoperative assessment be the caregiver in the PACU and provide the discharge instructions to the patient and family.⁵ We do recognize, that this may not be logistically possible in all cases. Having family at the bedside for reorientation may also be useful.

A lot still remains unsaid about the efficacy of quiet environment and the presence of family in the PACU. The interactions of anesthetic agents on flashbacks in PTSD patients, and the appropriate use of antipsychotic agents with anesthesia continues to remain an unfilled lacuna. A detailed evaluation of the potential trigger events for PTSD flashbacks in the PACU is still awaited. A lot of sexual assault victims, suffer from PTSD, which goes unnoticed and unaddressed, especially in India. A major part of this can be attributed to the lack of awareness about psychiatric disorders. Our society cradles a strange stigma and hesitancy with respect to seeking help for such disorders. A major portion of PTSD cases are hence missed during our preanaesthetic evaluation, and can eventually present with emergence agitation, for which the anaesthetist may be absolutely unprepared. Our health system also needs to move a step ahead and device follow up strategies and screening tools for PTSD in these patients. Once the risk is identified, we can plan special anesthetic and nursing interventions for these patients. Consolidation of experiences, data, and expertise will maximize the likelihood of the development of an evidence-based nursing and anesthetic plan for this population of patients. Moreso, when the importance of addressing this phenomenon cannot be underestimated.

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