

Problem Based Learning Discussion (PBLD):

## A lady unexpectedly awakens screaming in the PACU. Does she need opiates?

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Dr. Raw has no conflicts of information related to the lecture.

CASE DETAILS: A sixty-year old lady undergoes a laparoscopic hysterectomy. She awakens fully in the Post Anesthesia Care Unit (PACU). A nurse wants to give her more morphine. You had already given her 10 mg of morphine an hour before awakening the patient. How do you manage this crisis?

### DISCUSSION QUESTIONS;

1. What are the general steps in managing any pain in any patient, but particularly in PACU?
  - **Pain is not a diagnosis, but a symptom.**
  - A diagnosis first has to be made, before any pain can be treated. Even if there is a readily apparent cause for the pain., one must not just assume it is the cause of the pain. There may be a complication or another problem needing urgent treatment.
  - Particularly in two situations one must consider two important diagnoses before attributing pain to being routine post-surgical pain;
    - The two situations are; (i) after surgery, and (ii) any pain that is unexpected in timing and / or severity.
    - The two important diagnoses are; (i) there is an unrelated and perhaps unexpected cause for the pain different from the expected surgical pain, and (ii) the patient's vocalization and distress is due to an acute psychiatric syndrome or disorder.
  - When the cause of the patient's abnormal vocalization is attributed to pain, and the cause of the pain is diagnosed then evaluate the pain therapy. Is the pain therapy given up to that time sufficient or is supplementary analgesia needed? What analgesia would now be appropriate.
  - If nerve blocks were done, consider if any nerve block component has failed and whether it is feasible to repeat the nerve block or supplement the block with a different nerve injection.
  - Consider acute psychiatric syndromes when no diagnosis of abnormal pain can be made, and the analgesia to that point is well expected to be adequate for the surgical pain.
2. What are the dangers of treating an assumed pain that is not pain?
  - Overlooking a tissue or life-threatening complication like concealed bleeding and or tissue ischemia.
  - Causing critical respiratory depression from opiate overdose.
3. What are subjective and objective signs of pain?
  - Subjective pain is pain that the patient states they have. Only subjective reported pain can confidently be considered as true pain.
  - Objective pain is pain we assume the patient has based upon indirect signs. A patient who is distressed and vocalizing may seem to have pain. Other indirect signs of pain are very non-specific. Indirect signs of pain can have many causes. Indirect signs of pain are hypertension, tachycardia, sweating, crying, screaming, restlessness, immobility, flinching, not eating, growling etcetera.

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4. What are the potential unexpected causes of pain in this lady?
  - The list is truly endless. Some examples are; arterial clot in one leg with ischemia, bleeding into the spleen with hematoma under the diaphragm, hyperactive bowel contractions, a strangulated internal intestinal hernia. Such things are rare, but do need to be recognized when they occur.
  - Analgesia failure. There can be an extravasated IV line that has stopped analgesia reaching the systemic circulation. The nerve blocks could have failed. The nerve block can be on the wrong side. A component of the analgesia may have been forgotten to be given. (Is the IV bag of acetaminophen still not opened yet?). Was naloxone surreptitiously administered by someone on the anesthesia team.
5. How does one determine an unexpected cause of pain?
  - Do a full patient examination.
    - View all body parts; feet, abdomen, back, head, arms etcetera.
    - Examine all body parts; listen to the chest and abdomen, view all vital signs + EKG.
    - Palpate all body parts seeking to PROVOKE the pain. This will at least make an anatomical diagnosis.
    - This is an exercise that is equally to find pathology as it is to exclude pathology.
6. Could this lady truly have pain and just be overacting?
  - The answer is YES. The pain must still not be treated until after a thorough examination of the patient has been carried out. Such an examination need only take single minutes.
  - Overacting can only be a diagnosis of exclusion, and is rare.
7. For what reasons can this lady be screaming other than having pain?
  - The patient could be having (i) a conversion reaction, (ii) having severe cognitive dysfunction, (iii) acute schizophrenia. These are acute psychiatric problems.
  - These can all be treated with injection of a major tranquilizer, such as **haloperidol** (Haldol) or chlorpromazine (Largactil).
    - The only objective is to gain control of the current situation, then let the patient completely recover from the anesthetic.
    - If Haloperidol is used, use small doses of 1 or 2 mg initially. Try not to exceed 5 mg. Use the EKG for monitoring the QT interval.
      - Haloperidol mainly in doses especially larger than 5 mg, has potential to lengthen the QT interval.
      - Lengthened QT intervals associated with fast injected doses of haloperidol 10mg have sometimes resulted in Torsade de Pointes.
      - IV injection of haloperidol is well established in the international and American scientific literature, although not approved for advertising so by the USA FDA.
      - Off label and judicious use of IV haloperidol is, of course, permissible.
    - This author, in these circumstances, has used haloperidol very many times, with great success. It was never necessary to exceed 5 mg of drug in total for any PACU patient. Most cases responded very satisfactorily to total doses between 2 and 4 mg. A QT lengthening was never observed.
8. Tips and clues to help one anticipate acute psychiatric problems in the immediate post-operative period.
  - Severe post-operative cognitive dysfunction with vocalization can be predicted before anesthesia by the patient revealing some elements. The patient may reveal existing features cognitive dysfunction such as memory loss and intelligence loss. Also, if the patient demonstrates an aggressive character, and perhaps even makes threats in jest to the anesthesiologist.
  - Acute schizophrenia with vocalization can be predicted before surgery by a prior diagnosis of schizophrenia. In addition, the patient may show pre-anesthetic signs of agitation and restlessness. This is however, a rare post-operative problem.



- An acute conversion reaction (hysteria) is the most common PACU psychiatric disturbance. The patient typically obsesses about some fear, or about some past emotional distress in their life. They will often verbalize these thoughts randomly during a pre-anesthetic conversation. Not uncommonly they will verbalize immediately after receiving their first dose of sedative or other anesthesia drug like an opiate. It is because the patient becomes a bit disinhibited. Typically, during their postoperative acute reaction, they are very verbal. The voice action may be crying, or shouting out, but without making much intelligent sense. They are open eyed but look blankly at people and also past them. If one tries to address them they seem not to hear at all even if one can get them to look at you. They do not answer direct questions.
    - After making general medical assessment, while one prepares to sedate them, and perhaps waits for the haloperidol it is good to engage the patient verbally. Touch them, hold a hand, or an arm or place an arm about their shoulder all in a reassuring fashion. Speak a lot and clearly to them. Stand in front of them occupying their vision. Say pleasant and reassuring things like. *“My name is Peter. I am looking after you. Everything will be fine. I am here for you. I am looking after you”*, etcetera. Sometimes they are restless and want to get off the patient bed or cart. One must pre-occupy them, and say. Keep down, relax. One can let them sit, but do not let them off the bed or cart. Keep the security railings up. Once sedation has achieved making the patient restful once, it is very rare that a later repeat dose is needed. They usually regain sobriety a few hours later and are lucid and relaxed and one is able to communicate rationally then.
9. What are the management objectives of dealing with an acute psychiatric disturbance in the PACU?
- **Firstly, avoid giving an opiate overdose causing respiratory depression.** Opiates given for pain reasons have the counter drive of the pain modestly protecting respiratory drive. Opiates given in excess of analgesia needs are vastly more effective in depressing respiration. Opiates are a very bad choice of drug to treat acute psychiatric disturbances with, for this reason. AQ major tranquilizer is the best choice and typically very modest or small doses are very effective in the post-anesthetic setting.
  - **Secondly, one immediate patient calmness so that they do not hurt themselves trying to stand up and walk, or hurt anyone else** with blindly flailing arm or wild kicking leg.
  - **Thirdly, one wants to defer their full awakening to a later hour or two when there are zero residual anesthetic drug present in the patient’s system.** The second awakening is very rarely anything other than calm.
  - A psychiatric / psychology consultation can be arranged electively at any convenient time over the following week.
10. SUMMARY; What must one consider when any patient seems to have disproportional pain in inappropriate pain in the PACU, compared what was expected?
- Decide whether it is real pain, and an acute psychiatric disturbance.
  - If it is considered that there is a real pain, request the surgeon rapidly evaluate the patient in the PACU.
  - If it is considered there is no unusual pain problem, but rather psychiatric matter, strongly consider sedating the patient with major tranquilizer like haloperidol in 1 to 2 mg increments.
  - If no psychiatric condition is considered and not surgical complication or surprise disease is considered, then guardedly administer extra analgesia. Strongly prefer non-sedating analgesia, if not already administered. Examples are intravenous acetaminophen and intravenous ketorolac. Ketamine 50mg with 1 mg midazolam is very helpful too. Opiates in addition to large dose already administered, are not excluded, and should just be a lower option.