AWARENESS UNDER ANESTHESIA:

Does it Exist?
NO!
Now that we have answered the question we can all enjoy our meal, but WAIT! . . .

The title should be the following: “If You are Aware, You Might Need More Anesthesia.”
Case Study

- 52-year-old female presents in the pre-op area for perioperative consultation by anesthesiologist prior to undergoing laparoscopic cholecystectomy.
- During pre-anesthesia evaluation, she states that she has “woken up during surgery before and remembered everything.”
Is This Awareness

• Yes, but we need to ask more questions.
  – What was the procedure?
  – Where was it performed?
  – Was an anesthesiologist involved in the care?
What Happened?

• Very common story with certain procedures:
  – Colonoscopy, endoscopy, hysteroscopy, etc.
• The prior procedure was a hysteroscopy:
  – In a OB/GYN office.
  – Under “moderate sedation.”
What is Anesthesia?

• Generally referred to as medical care given to a patient during a procedure in order to facilitate the procedure, relieve suffering, alleviate pain, and reduce the emotional trauma of a procedure.

• Several types including the most common:
  – General
  – Deep sedation
  – Moderate sedation (The unicorn we pretend exists everywhere)
  – Regional
  – Local
Awareness

- Being able to remember operating room conversation or events or both.
- There can be awareness without recall (Thank heavens for Versed!)
- Awareness is usually not painful but can be very difficult emotionally for many patients.
- Is a normal occurrence for cases involving moderate sedation, regional, and local anesthesia as the primary anesthetic technique.
Procedures Where Awareness Should Be EXPECTED

• GI Lab without anesthesia providers present.
  – If the patient enters a state of no response to stimulus, then this is now deep sedation and more likely general anesthesia.
• Spinal or epidural anesthesia.
• Some spinal surgeries for brief periods.
  – Neuro-checks
• Regional or local anesthesia cases where this is the primary anesthetic used.
True Awareness

• When a patient undergoing a medical procedure/operation with a planned general anesthetic that results in the patient being able to recall events after the initial induction of anesthesia or before emergence.

• More likely to cause emotional trauma than physical pain; but in cases of awake paralysis, both traumas are equally likely.

• Various causes.
Statistics

• 1/30,000 usually quoted, but these are most likely only the severe cases that result in some sort of action (legal/administrative).

• More likely the rate is higher: 2008/2011 studies showed 2/2,000 and 6/6,000. These were randomized, high-risk patients.
Closed-Claim Analysis
Incidences Fall Into Two Broad Categories

- Necessary
- Neglectful
Necessary

• Some procedures can predispose to awareness and are known to carry the reasonable risk of awareness:
  – Cardiac Surgery, Emergent C-sections, Trauma
• The anesthesiologist is aware there is a high potential for recall prior to the case and after the case is finished.
• Patient(s) unable to tolerate the cardiac depressant effects of adequate anesthesia.
Neglectful

• Usually human error (can be equipment related but ultimately becomes human error still).
• Usually associated with cases requiring a muscle paralytic.
• Scenario usually involves a paralyzed-but-aware patient.
  – Horribly traumatic with long-lasting psychological injury.
  – This is extremely rare.
How

- Usually inattentive or distracted behavior.
  - Becoming a big medical-legal issue for malpractice
  - Is the EMR really your friend?
- Unless patient was in *extremis*, then strong probability the anesthesiologist was at fault
  - Empty/off vaporizer, mislabeled syringes.
- Generally can be avoided if long-acting muscle relaxants are used only procedures that require paralysis (craniotomy, abdominal surgery etc).
- The only case I am personally aware of was an exploratory laparotomy.
Conclusions

• Hollywood does a poor job depicting awareness. . . “Awake”... was this a comedy?
• Awareness is real.
• Awareness is generally preventable.
  – Limit OR distractions
• True unintentional awareness is almost always an error on the anesthesiologist’s part.
• Reassure your patients that if they have concerns to ask their anesthesiologist prior to surgery.
Questions?
Sources


