

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-awake 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

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