ANESTHESIA FOR POST-POLIO PATIENTS

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OBJECTIVES

• What’s the best anesthesia for you?
  – Little supporting data
  – What’s available
  – Why we might combine types of anesthesia
  – How we can help with postop pain
WHAT IS THE BEST ANESTHESIA?

IT DEPENDS!

• Your health
• The planned operation
• Your anesthesiologist
• Your preference
PATIENT
Diseases: PPS, Diabetes History, Psychic

OPERATION
Some ops need a certain anesthesia

ANESTHESIOLOGIST

SURGEON
A TYPICAL POST-POLIO PATIENT:

- Anxious about having anesthesia
- Obese
- Paralysis of extremities, contractures
- Pharyngeal and laryngeal weakness
- May have ventilatory muscle weakness
- Autonomic dysfunction, including reflux
- Sensitive to anesthetics (?, muscle relaxants
- Has a lot of postop pain
THE PLANNED OPERATION

• Certain surgeries need a certain kind of anesthesia

• Certain surgeries can be done with just sedation and don’t need general anesthesia

• The position needed for the surgery

• Different surgeons do things differently
TYPES OF ANESTHESIA

- GENERAL: Asleep
- REGIONAL: Only part of the body
- MAC: Monitored Anesthesia Care
  Surgeon gives local anesthesia
  We sedate and monitor
GENERAL ANESTHESIA

• Can induce lung injury in healthy lungs
• “Protective strategies” still result in Acute Lung Injury (ALI)
• 90% of all patients with G/A get atelectasis postop
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  Surgeon gives local anesthesia
  We sedate, monitor and make sure you are comfortable
REGIONAL ANESTHESIA:

- Blocks the pain signals coming to the brain from the surgical site
- THIS IS GOOD!
TYPES OF REGIONAL ANESTHESIA:

• Spinal
• Epidural
• IV block of arm
• Other arm blocks
• Ankle block
ULTRA-SOUND
SHOULD A POST-POLIO PATIENT HAVE A SPINAL OR EPIDURAL ANESTHETIC?

YES! There are no reports of worsening of PPS symptoms after regional anesthesia.
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WHAT SHOULD YOU DO WHEN SURGERY IS PLANNED?

• See your pulmonary MD

• Get pulmonary function tests!!!!

• Talk with your surgeon about your polio situation

• Learn more about the operation: what are the possible complications
WHAT SHOULD YOU DO WHEN SURGERY IS PLANNED?

• Are you at high risk for postop respiratory failure?
  - Used an iron lung
  - Use a ventilator now

• Do you have sleep apnea or scoliosis?

• Most difficult risk for post-polio is postop respiratory failure

• Your pulmonary MD must be involved preop and postop
WHAT SHOULD YOU DO WHEN SURGERY IS PLANNED?

- **Work on improving pulmonary function preop!**
  - Stop smoking 3-4 weeks before surgery
  - Bronchodilator meds
  - Antibiotics, if infection is present
  - Chest physiotherapy/bronchial drainage

Plan for the postoperative period
POSTOP CARE

- Will you need a ventilator postop?
  - Type?
  - Who will manage it?
  - Take your most recent pulmonary records when you come to the hospital
  - Sleep apnea patients on CPAP/BiPAP should bring their machine to the hospital

- Postop pain management!
  - Injected local anesthesia at surgery
  - Anesthesiologist-managed epidural/intrathecal narcotics
  - Patient-controlled analgesia (PCA): Possible problems
INCTIVE SPIROMETRY
CHANGES!

• Surgery is much less invasive

• Anesthesia is rapidly changing:
  – Anesthesia is much safer!
  – Have better drugs
  – Know a lot more about what happens during anesthesia