

Addressing Residual Pain after Abdominal Surgery

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Case Overview

Although research has shown that men and women experience pain differently, this concept has not been fully realized in post-operative pain and will be considered in assessing this patient.

History

JC is a 25 year old woman presenting to an emergency department (ED) complaining of acute, 8/10 right upper quadrant pain that started one day ago and radiates laterally to both sides and to her right shoulder. The pain increases on inspiration. The patient experienced five episodes of this pain, each lasting one hour, accompanied by diaphoresis, nausea, 2 episodes of vomiting, shortness of breath, and lightheadedness. She had a cholecystectomy seven days ago due to a seven-year history of gallstones. The patient reports that the pain feels similar to her preoperative symptoms, only less severe. She has no other medical conditions. Her family history is significant for cholelithiasis.

Medications

Depo-Provera

Relevant Vital Signs

- BP: 129/64
- Pulse: 81, regular
- Temp: 96.7
- RR: 20

Laboratory Evaluation

- WBC: 7.3
- ALB: 3.4
- ALT: 70
- AST: 66
- Chem 7: within normal limits
- Alkaline phosphatase: 160
- UA (-)
- UCG (-)

Physical Exam

JC is a young woman with a BMI of 24, who is alert and appears her stated age. Her exam is positive for abdominal tenderness, without rigidity or distention. Lungs are clear, and heart shows regular sinus rhythm without murmurs.

Testing

Pre-op ultra sound shows a contracted gallbladder packed with stones and no radiographic evidence of cholecystitis. No post-op imaging was performed.

Emergency Department Course

JC required multiple doses of morphine and IV fluids before her pain was under control. The patient's surgeon examined her in the emergency department. Based on her presentation and unremarkable laboratory values, the surgeon declared her pain as post-op residual pain rather than lingering stones or inflammation. No further imaging was performed. The patient's pain improved over several hours and eventually was discharged home with surgical follow up the following day.

Discussion

There is a growing body of literature exploring the differences in pain experience between genders. Numerous studies indicate that women display increased sensitivity, have lower pain thresholds and report higher pain ratings compared with men.^{2,4} In a review by Hoffman and Tarzian (2001), the authors write that women show a higher prevalence of chronic pain syndromes, are biologically more sensitive to pain and respond differently to analgesics. Women tend to respond better to analgesics of the kappa-opioid class, including pentazocine, nalbuphine and butorphanol, due to the difference in κ -opioid-activated endogenous pain modulating circuits.⁵ Perhaps this could have been considered as part of JC's pain regimen. As related to JC, there is clinical evidence that women show increased pain intensity after a laparoscopic cholecystectomy.⁷ In fact, women require 30% more morphine to achieve an equal degree of analgesia compared with men in addition to having a more intense pain experience.³ Finally, women are also more likely to report persisting abdominal pain that mimics pre-operative pain, an event which occurs in up to 30% of patients.^{1,8} The presenting patient demonstrated this pre-cholecystectomy pain experience.

Patient Follow-up

One week after JC's presentation to the ED, a follow-up phone call revealed she continued with daily abdominal pain. She remained frustrated but optimistic that this residual postoperative pain will eventually subside.

About the Author: Talia Firestein is a second year medical student at Warren Alpert Medical School of Brown University. She received a BA in Community Health from Brown in 2009. The case was reviewed and approved by Alyson McGregor, MD

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