

Opioid-Free Analgesia Following Robot-Assisted Laparoscopic Prostatectomy (RALP): 10 Case Experiences

Introduction and Objective: Opioid analgesia employed for pain control following abdominal and pelvic surgery have potential adverse events and can delay return of normal bowel function. To minimize its use, we utilized scheduled intravenous (IV) acetaminophen and ketorolac for perioperative analgesia following RALP.

Materials and Methods: Prospectively collected data from hospital records of consecutive patients who underwent transperitoneal RALP using perioperative IV acetaminophen and ketorolac for pain control were reviewed. Each patient had a post-auricular scopolamine patch placed preoperatively. Patients received IV midazolam 1-2 mg and fentanyl 3-4 mcg/kg, followed by IV induction of general endotracheal anesthesia (GEA) with propofol 1-2 mg/kg. After IV rocuronium 0.45-0.60 mg/kg for muscle relaxation, patients were intubated; intermittent 10 mg doses were administered during surgery to maintain one twitch to nerve stimulation. GEA was maintained with sevoflurane 0.7-1.0 MAC and dexmedetomidine infusion 0.4 mg/kg/hr. All patients were extubated in the operating suite and transported to the post anesthesia care unit (PACU) with supplemental oxygen by facemask and pulse oximetry monitoring. IV acetaminophen 1000 mg was administered prior to and q6 hour post-surgery, while IV ketorolac 30 mg was administered 30 minutes prior to transfer to PACU and at q8 hour intervals. Patients were provided a clear liquid diet and ambulating the evening of surgery. Once passage of flatus and tolerating a regular diet were confirmed, patients were discharged home.

Results: Ten patients had a median age of 63 years and an American Society of Anesthesiologists (ASA) class of 2. Median operative time was 90 minutes and estimated blood loss was 60 mL. All patients had a bilateral nerve-sparing RALP. Median hospitalization and urethral catheter duration were 20 hours and 4.0 days, respectively. No parenteral or oral opioid analgesia was required postoperatively.

Conclusions: Perioperative scheduled IV acetaminophen and ketorolac are effective for pain management following RALP. Use of this regimen has the potential to obviate the need for postoperative opioid analgesia for this procedure, thereby minimizing opioid-associated adverse events.