

CHRONIC USE OF OXYBUTYNIN AND SPINAL ANESTHESIA: A CASE OF POSTOPERATIVE URINARY RETENTION AND HEMATURIA

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Overactive bladder is a disorder characterized by micturition urgency with or without incontinence and with an increased urinary frequency and nocturia. Oxybutynin is the most common medication used in the treatment owing to having more tolerable side effects¹. This drug has not been described as a risk factor to develop postoperative urinary retention.

Male, 61 years old, 84 kg and using simvastatin in order to control hypercholesterolemia and oxybutynin to control overactive bladder. Preoperative examinations were normal. He was scheduled to varicectomy of the lower limbs on outpatient basis. Spinal anesthesia (L3/L4 interspace) with bupivacaine, 12.5 mg plus intrathecal fentanyl, 15 mcg was administered in addition to an intravenous sedation with midazolam and sufentanyl. Intravenous saline (2000 ml) and ephedrine (15 mg) was administered in order to treat hypotension during a two-hour procedure. Seven hours after the end of the procedure, the patient complained of a strong pelvic pain, dysuria, hematuria and clot elimination. He also presented a very painful urinary retention on palpation. There was an immediate symptom relief when bladder catheter was used and blood clots were seen in urine. The catheter was withdrawn and the patient was discharged on the following day, urinating with no problems but with a slight hematuria.

Oxybutynin acts as an anticholinergic agent with an antimuscarinic action and, particularly, an antispasmodic action in the vesical smooth muscle. As a consequence, there is an increased vesical capacity, reduced micturition frequency and inhibition of the initial micturition stimulus. In an experimental model, urinary frequency was reduced in a situation of induced-hemorrhagic cystitis and there was a remarkable decrease in the detrusor muscle contraction strength when compared to the normal control².

Intrathecal opioid administration causes urinary retention via μ - and/or δ -receptors³. In an animal model, cholinomimetic agents and α -adrenergic agonists aggravate the increase of morphine-induced intravesical pressure⁴.

This patient, possibly, presented urinary retention arising out of the additive association of two pathophysiological mechanisms. Bladder distension may have caused an increase of the intravesical pressure which led to the rupture of vessels from the bladder or prostate with hematuria.

In a recent review, Baldini et al recommends that surgical outpatients with low risk for post-operative urinary retention can be sent home without voiding⁵. According to these authors, the patient of this case is classified as a high risk patient.

In surgical outpatients using oxybutynin, it should be considered the non-administration of opioids in the neuroaxis. Moreover, it seems prudent to wait them for voiding before home discharge.

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