Back to Basics - a case of severe post-operative pain

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Summary

Acute post-operative pain can be distressing for patients, delay recovery, and prolong hospital stay. Some cases may prove difficult to treat and present a real challenge to the clinicians involved. Here we present a case of severe and persistent post-operative pain and discuss some important learning points.

Introduction

Mrs X, a 45-year-old lady, underwent elective posterior repair and sacrospinous hysteropexy for uterovaginal prolapse. Her other history includes gastro-esophageal reflux disease and recurrent urinary tract infections. She was otherwise well, and did not have a history of chronic pain. The operation was uneventful, lasting one hour, with an estimated blood loss of 200ml. There was good initial recovery from general anaesthesia.

Case report

Mrs X was given 7mg morphine, 1 g paracetamol and 75mg diclofenac intra-operatively. A further 6mg morphine IV was given post-operatively in recovery. Once the patient was reasonably comfortable, she was transferred back to the ward at 13:00pm.

Around 15:00pm, the patient developed severe pain in the sacral region. She was also noted to be bradycardic, with a heart rate of 42 beats per minute, therefore no further analgesia was given. She was assessed by the gynaecology team, and given 10mg of oramorph, but unfortunately promptly vomited. The surgical team also removed the vaginal pack hoping to provide some relief.

The pain was described as central, sacral, constant, cramping, 10 out of 10 severity, with no other associated signs of concern. Specifically, there was no vaginal bleeding, abdominal guarding, and the patient remained haemodynamically stable with a good urine output. There was no improvement following the oramorph (presumably some of which was not absorbed due to vomiting) and removal of the vaginal pack.

Mrs X was reviewed by the on call anaesthetic consultant at 17:00pm, then taken back to recovery for closer monitoring and pain management. At this point the patient still had severe pain and bradycardia, was very distressed, unable to get into a comfortable position, and felt the urge to open her bowels.

A second anaesthetic consultant reviewed the patient and prescribed glycopyrrolate for bradycardia and 10mg morphine IV. The bradycardia resolved with glycopyrrolate, but the pain remained severe. 40mg parecoxib IV was then given, followed by 100mg tramadol IV at 18:45.

	Time	Analgesia	Notes
Intra-op	10:55	Morphine 4mg	
	11:15	Paracetamol 1g, Diclofenac 75mg	
	11:35	Morphine 3mg	
Recovery	12:30	Morphine 3x2mg	Discharged to ward 13:00pm
Ward	15:25	10mg oramorph	Onset of pain 15:00, seen by surgical team. Vomited after oramorph. Pain 10/10
Recovery	17:30	Morphine 10mg	Anaesthetic assessment at 17:00pm, returned to recovery for further management.
	18:15	Parecoxib 40mg	Gynae consultant r/v + PV USS 18:00pm.
	18:45	Tramadol 100mg	Little improvement – suggest CT

Table 1. Summary of perioperative events and analgesia

Despite the multimodal approach, there was little improvement in the patient's symptoms. The on call gynaecology consultant then assessed the patient and felt that the pain was possibly caused by nerve impingement. There were no clinical suspicions of a pelvic haematoma, and a bedside per vagina ultrasound scan confirmed this. However given the severity and persistence of the patient's symptoms, the anaesthetist suggested a CT scan to rule out a haematoma or any other sinister causes of pain.

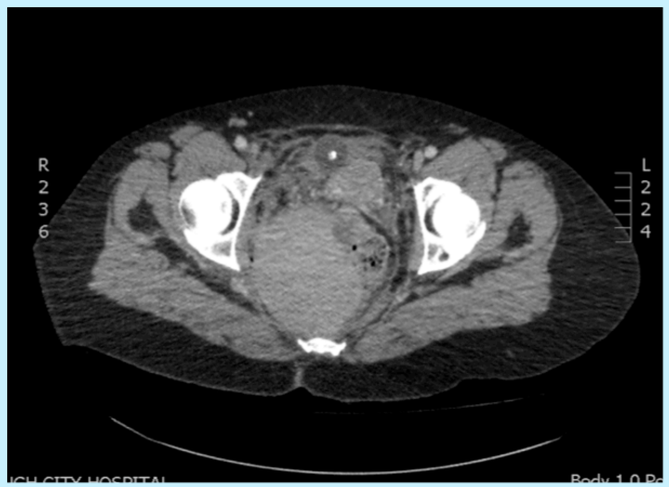

Fig. 1. CT showing large persacral haematoma

Fortunately, Mrs X's symptoms were much improved shortly after receiving IV tramadol, at 19:05. The severity was reduced to 2 out 10 by 20:45.

A CT scan was performed later in the night (Fig.1) and showed a massive pre-sacral haematoma, displacing the rectum to the left. There was no focus of active extravasation seen on the single-phase study. This would certainly explain Mrs X's symptoms.

The patient transiently dropped her blood pressure overnight which was responsive to intravenous fluid. The haematoma was managed conservatively. Mrs X was pain-free the next day and discharged home 2 days post-op with a course of antibiotics.

Discussion

Mrs X's post-operative pain management was confounded by several factors. Firstly, her bradycardia may have caused a delay in her receiving much needed analgesia. Secondly, her symptoms and signs were at odds, in that her pain was disproportionate in the context of a benign abdomen and stable observations. We may have been somewhat falsely reassured. Thirdly, she was examined several times by the surgical team, and a bedside ultrasound showed no evidence of a haematoma, further reassuring us but making the pain difficult to explain.

Also of note, perhaps due to the timing of events, the senior clinicians involved were all from the on call teams. The consultant surgeon who performed the initial surgery was contacted via telephone, but was not involved in the direct assessment and management of the patient post-operatively.

In this case a high index of suspicion was required to eventually reach a definitive diagnosis. And happily, although the haematoma was large, it resolved with conservative management, and the patient's pain did eventually respond to multimodal systemic analgesia.

In conclusion, acute post-operative pain can be severe and resistant to treatment. A multimodal approach can be effective. However we should always try to establish the underlying cause of severe pain, and maintain a high index of suspicion of potentially serious complications of surgery, especially if pain is disproportionate to the surgery performed.