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Tramadol addict: a rare but real challenge for the anaesthesiologist

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Sir,

Tramadol has long been considered as a substance of very low abuse potential. Although tramadol addiction is very rare, such patients always present an array of challenges to the anaesthesiologist, as well as to the surgeon. We describe one such case in a relatively young, otherwise healthy adult patient.

A 46-year-old pharmacist presented to our hospital with a history of tramadol drug addiction for the past 5 years. Initially, he used to take 8–10 tramadol tablets but for the past 2 years he had the habit of taking it via an intravenous route also. The frequency of usage increased from 8 to 20 tablets daily over a period of 5 years. The route of administration varied from an oral to an intravenous route. The patient presented to our gastro-surgery department with painful abdomen and bilious vomiting for 15 days. The patient was started on conservative treatment and later diagnosed to have an intestinal obstruction. The patient was planned to undergo exploratory laparotomy surgery and was accepted under ASA grade II. Strict orders were given to avoid all opioid analgesics until the day of surgery. Rest all drugs were continued up to the day of surgery and non-opioid anaesthesia was planned. Premedication consisted of midazolam 2 mg i.v., glycopyrrolate 0.2 mg i.v., and paracetamol 1 g i.v. Intra-operatively, a right internal jugular vein cannulation was performed as no patent peripheral veins were present due to multiple attempts at drug abuse. Non-invasive monitoring with electrocardiography (ECG), non-invasive blood pressure (NIBP), end-tidal carbon dioxide (EtCO₂), pulse oximetry (SpO₂), Central Venous Pressure (CVP) and temperature monitoring were done. Moreover, an

18 G epidural catheter was inserted at the L4-5 interspace and was inserted up to 12 cm.

Anaesthesia was induced with ketamine 100 mg i.v., Inj. vecuronium 6 mg i.v. and O₂ 100%. Bag-mask ventilation was carried out for 3 mins followed by oral endotracheal intubation. Anaesthesia, maintained with isoflurane 1 vol% (titrated), O₂ to air ratio 1: 1 and vecuronium 1 mg i.v., was given as a supplemental dose. Analgesia was supplemented via paracetamol 1 g i.v. infusion and an epidural infusion of 0.25% bupivacaine at the rate of 5 mL h⁻¹. Intraoperative fluid management was performed with Ringer's lactate using the Holliday-Segar equation and titrated according to CVP.

The intraoperative vital signs were stable throughout the operation. Surgery was uneventful and at its conclusion the neuromuscular blockade was reversed with intravenous neostigmine 3.5 mg and glycopyrrolate 0.6 mg. The patient had a smooth recovery, an extubated trachea and was shifted to a post-anaesthesia care unit for further management. The surgery lasted for 2 hrs.

In the postoperative care unit, patient demanded analgesia within half an hour of surgery. Indeed, the patient's heart rate and blood pressure had increased by almost 40%, suggestive of pain. He was given first a rescue analgesic in the form of Inj. diclofenac 75 mg infusion. A supplemental dose of an analgesic (paracetamol 1 g i.v.) was repeated after 1 h. The patient was started on epidural infusion using 0.125% bupivacaine. This was followed by intravenous diclofenac 75 mg after every 6 h for a further 48 h.

Tramadol is a synthetic analogue of codeine with a central effect [1]. It is neither an opioid derivative nor a non-steroidal anti-inflammatory (NSAID) medication. Tramadol is a racemic mixture of two enantiomers with a synergistic analgesic effect [2]. The (+) and (–) enantiomers weakly connect to mu opioid receptors [3]. Although tramadol has fewer side effects, its addictive capacity in comparison to other opioids has been reported, resulting in many cases of dependency, abuse, intentional overdose

or poisoning [4]. Tramadol withdrawal lasts longer than other opioids, if compared. Moreover, tramadol dependency happens faster in those who abuse it with other analgesics or ethanol [4].

Tramadol addict patients may pose a challenge for anaesthesiologists. These patients often give a false history or malingering during the pre-anaesthesia check-up. A proper psychological workup should be done if these patients are posted for elective surgery. These patients are often nutritionally depleted while difficult intravenous access is always a concern.

In the case of elective planned surgery, naltrexone can be used as a part of abstinence-maintenance therapy. Naltrexone can be continued up to the day of surgery. One study, involving 58 patients who underwent rapid opiate antagonist induction under general anaesthesia, showed that ketamine could help manage opioid withdrawal. This inclined us towards the use of ketamine as an induction agent in our case [5].

All opioid analgesics should be strictly avoided with NSAIDs, paracetamol, ketamine forming the mainstay of non-opioid analgesics. Regional anaesthesia is always preferred if indicated [1, 2]. If opioid-based anaesthetic management is planned, naltrexone should be discontinued at least 24–72 hours prior to surgery. As the requirement of opioid analgesia may be greater, shorter-acting opioids analgesics, such as fentanyl, remifentanyl, sufentanyl, are preferred. Nerve blocks and local infiltration can be additive. Postoperatively non-opioid-based analgesics should be given. Since our case was an emergency one, we preferred a non-opioid-based anaesthetic plan.

One should have an emphatic and holistic approach towards tramadol addict patients for a proper management strategy. Perioperative management of opioid-dependent patients begins with the preoperative administration of their

daily maintenance or baseline opioid dose before induction of general, spinal or regional anaesthesia [6]. Patients should be instructed to take their usual dose of an oral opioid on the morning of surgery.

The anaesthesiologist plays a key role, both in opioid addict patient analgesic dose requirement maintenance therapy and the withdrawal symptoms. Multimodal analgesia is a cornerstone in managing these patients in the perioperative period. Although challenging, with a clear management strategy, patients with known and unknown tramadol abuse can be safely and effectively managed in the perioperative period.

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Aerosplenism in the intensive care unit

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Sir,

Following a motorcycle accident, a 48-year old male was admitted to the ICU for severe blunt abdominal trauma with stable haemodynamics and without clinical signs of peritonitis. An emergency contrast-enhanced abdominal computed tomography (CT) scan revealed Grade III-IV laceration of the spleen with signs of active bleeding (Fig. 1). An interventional angiography was performed using metal coils for non-selective embolization of the *arteria lienalis*. Following an unremarkable course of 72 hours, the patient's