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 malinger 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, remifentanil, sufentanil, 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 peritontitis. 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

Figure 1. Initial abdominal CT-scan demonstrating traumatic laceration of the spleen (white arrow)

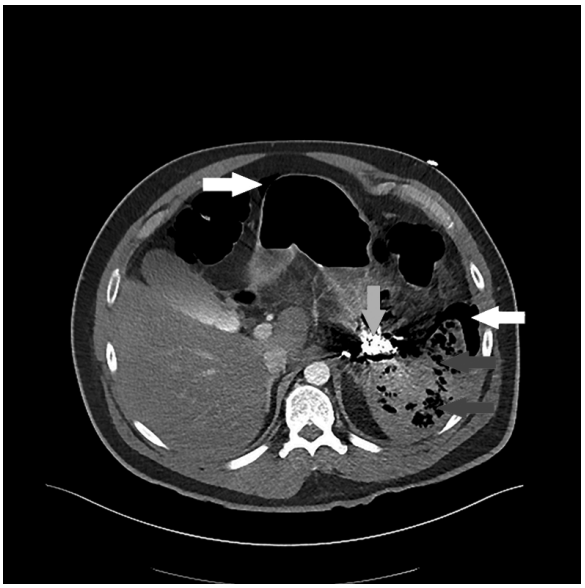

Figure 2. CT-scan (day 3) following clinical deterioration. Pneumoperitoneum (white arrows), coils (lightgray arrow), and intra-splenic air collection (darkgrey arrows) is indicated

clinical status deteriorated. Calculated antibiotic therapy was started and a repeat abdominal CT-scan demonstrated peri- and profound intra-splenic gas collection (Fig. 2). Although "benign aerosplenism" as described in anecdotal reports following proximal splenic embolization (mostly using foamy materials) was considered, an explorative laparotomy revealed necrosis of the entire spleen, part of the pancreas, and the greater gastric curvature. A splenectomy, a partial gastric resection, and a distal pancreatectomy were performed. Intraoperative microbiological biopsy findings were consistently positive for *Clostridiums perfringens,* demonstrating direct evidence for extensive gas gangrene. The subsequent course was unremarkable and the patient was discharged two days later. Post-splenectomy vaccination was performed. This case demonstrates that large intrasplenic gas collections following embolization of the splenic artery should be considered a critical condition and should not be mistaken for "benign aerosplenism".

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