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Severe opioid toxicity following rupture of an ingested drug balloon in a body packer

A flight on route from Vietnam to Sydney requested an emergency landing at Alice Springs airport following the discovery of a 45-year-old lady who was found unresponsive and clammy by her husband. Her only past medical history was that of well-controlled diabetes on oral hypoglycaemics. Paramedical staff confirmed a Glasgow Coma score of three, hypotension, severe bradycardia, respiratory rate of 10 and pin-point pupils on the tarmac requiring immediate intubation and transfer to Alice Springs Hospital. Following aggressive resuscitation and stabilization, a negative computed tomography (CT) brain scan excluded intracranial pathology. Due to suspicion of severe narcosis, an abdominal CT scan (Fig. 1) was performed which confirmed multiple radio-opaque foreign bodies within the stomach, small bowel, rectum and vagina. Informed consent was obtained from the patient for a de-identified case report.

Given the radiological findings and clinical instability, the patient was taken immediately to theatre. Examination under anaesthesia was carried out with two large foreign bodies extracted from the vaginal cavity and two from the rectum. An exploratory laparotomy was conducted following this with a further 16 small packages removed. The smaller packages were concentrated in the stomach and small intestine (Fig. 2) and were extracted via gastrotomy and enterotomy and 'milking' of drug balloons from these sites. The diagnosis of opiate toxicity was confirmed on removal of a ruptured balloon (Fig. 3). Repeat CT following laparotomy confirmed extraction of all foreign bodies. Following further investigation by the federal police, the husband of the patient was also examined with four large balloon removed from his rectum and were later confirmed to be heroin by authorities.

Drug trafficking by so-called 'body packers' and 'pushers' are a growing international problem.[1] In exchange for a fraction of the street value of the drugs they carry, body packers risk imprisonment or possibly capital punishment depending on the country in addition to the catastrophic medical and surgical complications. Where surgical intervention fails, these individuals present in three scenarios: acute drug toxicity, bowel obstruction or medical examination following detention/arrest. As they carry different types of illicit drugs, surgeons must be familiar with the clinical manifestations of drug toxicity. The typical clinical triad of pupillary miosis, respiratory and central depression indicates opioid toxicity.[2] Cocaine toxicity typically presents with behavioural abnormality/toxic psychosis, mydriasis, fever, tachycardia, hypertension followed by seizures and cardiovascular arrest.[3]

Plain radiography and contrast-enhanced CT scan are the recommended radiological examinations. CT is usually conducted due to the higher specificity and sensitivity. The absolute indications for surgery are the signs and symptoms of drug toxicity and bowel obstruction. Laparotomy with enterotomy or gastrotomy is the corner stone of surgical management. Surgeons must ensure all packages are removed prior to closure. Any retained foreign bodies could prove fatal if post-operative complications such as ileus develop increasing the chance of further foreign body rupture and subsequent systemic toxicity. Endoscopic removal of drug packages is not recommended due to the higher theoretical risk of rupture. On completion of surgical exploration, we recommend performing an abdominal CT scan to confirm complete removal of all packages. Asymptomatic packers should be treated conservatively with laxatives and exploratory laparotomy reserved for instances where packages are not excreted after 5 days.[4]

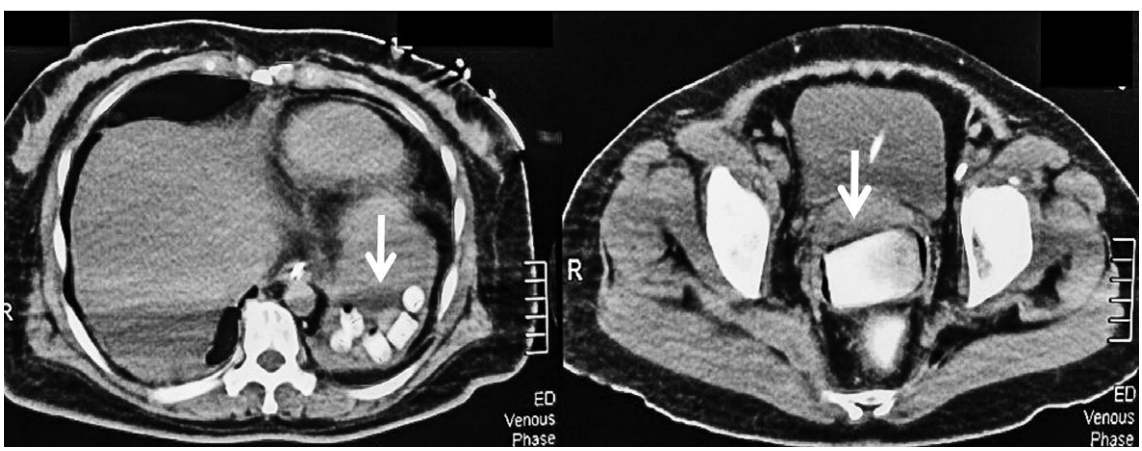

Fig. 1. Abdominal computed tomography scan demonstrating multiple drug balloons (arrows) in the stomach (left) and rectum (right).

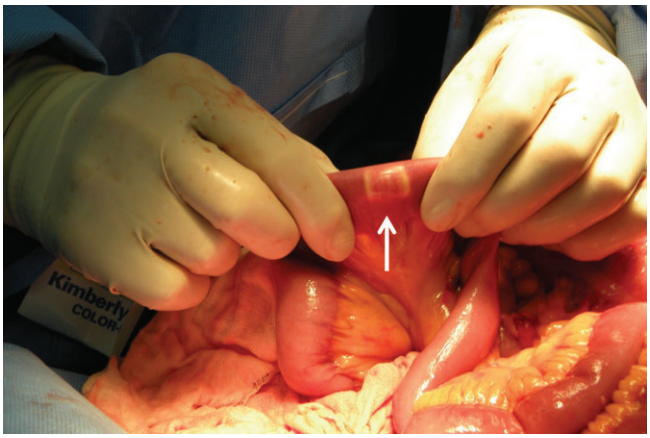

Fig. 2. Intraoperative findings of small intestine containing drug balloon (arrow).

Fig. 3. Sixteen small-sized drug balloons were extracted from the small intestine and two large balloons from both the vagina and rectum. Also pictured are the remnants of ruptured drug balloon from the small intestine leading to opiate toxicity.

References

1. Janczak J, Beutner U, Hasler K. Body packing: from seizures to laparotomy. *Case Rep. Emerg. Med.* 2015; **2015**: 208047.
2. McCarron MM, Wood JD. The cocaine 'body packer' syndrome. Diagnosis and treatment. *JAMA* 1983; **250**: 1417–20.
3. Caruana DS, Weinbach B, Goerg D, Gardner LB. Cocaine-packet ingestion. Diagnosis, management, and natural history. *Ann. Intern. Med.* 1984; **100**: 73–4.
4. Silverberg D, Menes T, Kim U. Surgery for "body packers" a 15-year experience. *World J. Surg.* 2006; **30**: 541–6.

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