

Body packing – a case report and review of the literature

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Summary: Drug smuggling by internal bodily concealment is a growing international problem. The management of a patient who swallowed packages containing heroin is described. The medical management, indications for surgery and the ethical dilemmas of treating patients with drugs concealed within the gastrointestinal tract are discussed.

Introduction

The smuggling of illicit drugs by internal bodily concealment was first reported in 1974. Packages of illicit drugs may be concealed within the body by swallowing or insertion into the vagina or rectum. These individuals have been variously described as 'body packers', 'swallowers', 'stuffers' or 'mules'. Drugs smuggled by body concealment have included hashish,^{1–3} heroin^{4,5} and cocaine.^{6–15}

Body packers present to hospitals either because they have developed complications, such as drug intoxication, intestinal obstruction and occasionally following sudden death, or after arrest by customs officers who seek medical advice on their behalf.

The growing problem of international drug smuggling by body packers is highlighted by the increasing number of publications on this topic and a consensus is developing on the medical management of drug smugglers. We report a case, review the literature and suggest guidelines for the management of these patients.

Case report

A 27 year old Nigerian male was arrested on suspicion of drug smuggling after arriving at Gatwick airport by an international flight from Lagos, Nigeria. A test of his urine was positive for heroin and he subsequently admitted swallowing 15 packages containing the drug just prior to departure. He was observed in custody for 20 days and passed 14 packets of heroin wrapped in latex

condoms with an outer layer of masking tape. He was referred because of failure to pass the fifteenth package.

Physical examination was unremarkable (he did not have pinpoint pupils). An abdominal X-ray revealed a rectangular object in the upper abdomen (see Figure 1), Oesophagogastroscopy confirmed that the package was in the stomach, but no attempt was made to remove it. As the package had

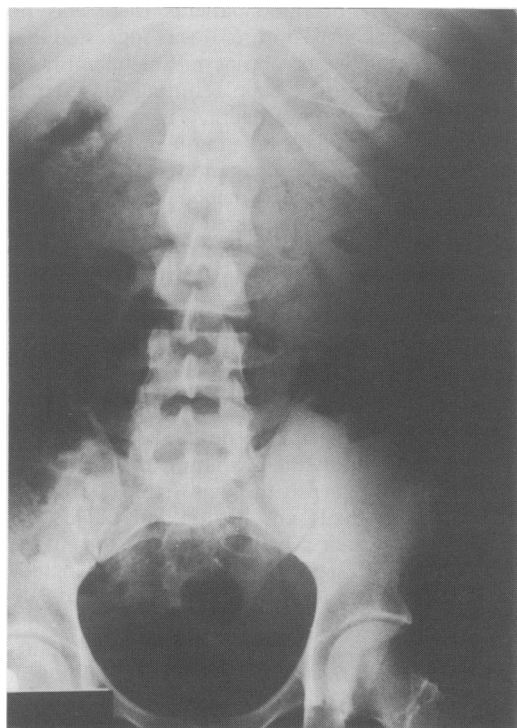


Figure 1 Plain abdominal X-ray of the abdomen revealing an opaque package containing heroin.

not passed through the pylorus during the 3 weeks after it had been swallowed it was removed at laparotomy. A $4 \times 3 \times 2$ cm packet was recovered from the fundus of the stomach through a gastro-tomy. Post-operatively he made an uneventful recovery.

Discussion

The initial management of suspected body packers is to establish whether illicit drugs are present in the gastrointestinal tract or vagina. The patients should be monitored to detect complications, enabling early treatment; and to remove or assist in the expulsion of drug packages from the body.

Intoxication by cocaine and heroin may be fatal, but there have been no reported cases of death from hashish intoxication. Cocaine is highly toxic, the acute lethal oral dose is 1.2 g, but death has been described after the ingestion of only 20 mg.¹⁶ Symptoms and signs of cocaine toxicity include euphoria, disorientation, behavioural changes, nausea, vomiting, tachycardia, hypertension, hypotension, respiratory depression, dilated pupils, seizures, coma and death. Early reports were based on patients discovered, at post-mortem (for investigation of sudden death), to have swallowed latex condoms of cocaine which had leaked.⁷ In up to 50% of these patients there was no evidence of package rupture. It was suggested that the condoms acted as semi-permeable membranes allowing cocaine to escape resulting in systemic toxicity and sometimes death. There is evidence that body packers have taken note of these defects and have packaged the drug more carefully. Some drugs appear to have been machine packaged. In a series of 50 patients discovered to have swallowed packets of cocaine there were no deaths and all patients were managed conservatively.¹² This improvement reflects increasing awareness of the problem by the authorities with better detection of body packers and also improved packaging of drugs by couriers.

Heroin is also well absorbed from the gastrointestinal tract. Tolerance develops rapidly, but there is marked individual variation in sensitivity to this drug. Consequently the acute lethal dose varies between individuals and within individuals depending upon their previous exposure to opiates. Symptoms and signs of opiate toxicity include nausea, vomiting, constipation, depression of consciousness, respiratory depression, coma and death. The constipating effect of heroin is important as leakage from a swallowed package will lengthen bowel transit time increasing absorption and toxicity of the drug. Hashish (cannabis) overdose will cause excitement, anxiety, confusion and occasionally loss of consciousness.¹³

In taking a history, symptoms of intestinal obstruction and cocaine, heroin and hashish toxicity must be sought. The type and quantity of drug, the type of packaging used and the method and duration of concealment are all important in the subsequent management of the patient. It should be assumed that all patients are hepatitis B and human immunodeficiency virus (HIV) positive.

Physical examination should include a specific search for concealed packages in the rectum and vagina, in addition to signs of drug intoxication, intestinal obstruction and previous drug abuse.

The investigation of suspected body-packers must include plain abdominal and chest X-rays which will help identify the majority of concealed packages. The drug packets may have or may develop a radiolucent halo on radiological examination and this indicates deterioration of the package with an increased risk of rupture.^{4,14} or occasionally it may be due to gas production following fermentation of hashish. Radiological evidence of small or large bowel obstruction may be present.

Analytical support is not required if cocaine or heroin intoxication are diagnosed clinically. The presence of heroin and cocaine may need to be determined analytically if the individual body packer is asymptomatic. Such investigations are invariably carried out on urine and not blood samples and are only available from a small number of laboratories. Moreover qualitative confirmation (rather than quantitative measurement) is usually offered by these laboratories.

The patient with intestinal obstruction should have a laparotomy to remove the obstructing package(s). Obstruction has been described at the gastro-oesophageal junction,⁴ pylorus, ileo-caecal valve and colonic flexures.^{12,14} If multiple packages are found at laparotomy they should all be removed. The number of enterotomies should be limited by gently milking (to avoid splitting) the packages along the bowel. Endoscopy may be useful in confirming the presence of drug packages in the stomach, but endoscopic removal should not be attempted as rupture is likely and may result in death.¹⁰

The patient with evidence of drug toxicity

Body packers presenting with clinical evidence of heroin toxicity should be resuscitated with naloxone. However, there is no specific antidote for cocaine. Symptoms and signs of mild cocaine intoxication are treated with intravenous diazepam, and propranolol is reserved for more severe overdose. Laparotomy and removal of leaking packages should be performed as soon after resuscitation as possible to prevent continuing intoxication.

The asymptomatic patient

The history is of great importance to determine the type of drug smuggled, the type of packages, whether the cocaine or heroin has been 'cut' with other toxic substances such as quinine, procaine or barbiturates.^{17,18} The patient may not be honest about the number of packages swallowed and the places of concealment. The method of package manufacture, such as machine packaging may make subsequent leak or rupture less likely than drugs contained within latex condoms.¹² A single package of cocaine may contain between 3 and 7 g of the drug and up to 182 packages have been recovered from a single patient. The total cocaine load exceeds the acute lethal oral dose by a large margin. Initial reports suggested that early laparotomy was important in managing these patients,¹⁰ but more recently conservative management has been recommended as most packets pass spontaneously within 30 hours.¹² If packets of heroin or cocaine are not passed within 5 days of ingestion, particularly if there is failure to progress distally or there are radiological signs of package deterioration, surgical removal is advised. If the concealed drug is hashish an expectant policy should be adopted because of its relatively low toxicity. The use of laxatives such as lactulose does help in the expulsion of drug packages from the gastrointestinal tract. Stimulant laxatives should be avoided as they may precipitate intestinal obstruction. Oral liquid paraffin and arachis oil enemas should not be used as they cause deteriora-

tion of the latex rubber used to package the drugs.^{19,20}

The ethical problems posed by the treatment of drug smugglers are not straight forward. The extent to which, if at all, doctors should co-operate with customs officers in searching for drug packages is difficult to answer. The medical profession is seldom called upon to help in the initial search as customs officers have their own facilities for searching and observing suspected drug smugglers. If patients are referred because of drug toxicity or failure to pass drug packages then the doctor's priority is the medical welfare of his patient. As 14 packages had already been passed and a 15th was known to be in the stomach there was no ethical dilemma in handing the retrieved packet over to accompanying customs officers in our own patient.

If a person presents, without the knowledge of law enforcement agencies, with concealed drugs, the doctor is under duty not to disclose, without the consent of his patient, this information, unless there is an overriding public interest in disclosure. The balancing of these conflicting interests is difficult and the final decision rests with the individual doctor.

The carriage of drugs by concealment in the gastrointestinal tract is an increasingly popular method of smuggling drugs. A period of conservative management is appropriate in the majority of patients and surgical treatment should be reserved for failure of package progression, signs of packet degeneration or drug toxicity.

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