



Case Report

Gastric Obstruction by Opium Packets: A Case Report

Yeganeh Ramazani¹, Ahmad Nemati¹, Mohammad Moshiri^{2,3}, Mohammad Reza Motie⁴, Hamid Jomehpour⁵, Leila Etemad^{6*}

¹Student Research Committee, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

²Medical Toxicology Research Center, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

³Department of Clinical Toxicology and Poisoning, Imam Reza (p) Hospital, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

⁴Surgical Oncology Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

⁵Drug Control Headquarters of the Islamic Republic of Iran

⁶Pharmaceutical Research Center, Pharmaceutical Technology Institute, Mashhad University of Medical Sciences, Mashhad, Iran

Abstract

Background: We reported a case of gastric obstruction in a body packer who swallowed a large number of opium packets.

Case Report: A 36-year-old man opium addict visited the emergency department with epigastric pain for three days. He swallowed nearly 90 packets of opium for smuggling purposes four days earlier. He self-administered laxatives. In contrast, many times vomiting, he defecated only four packets and vomited one packet. The abdominal X-rays showed some amounts of fluid-air levels and multiple cylindrical opacities with the double-condom sign, corresponding to the distended stomach. Due to the worsening of his abdominal symptoms, he underwent an urgent laparotomy and 84 packets (4-6 cm in size and 8-10 g/ packet of opium) with a total weight of 870 g. They were wrapped in some layers of plastic and tied at the ends. He was discharged in stable condition.

Conclusion: A large number of ingested drug packets can induce gastrointestinal obstruction.

Keywords: Substance-related disorders, Illicit drugs, Opium, Drug trafficking

Citation: Ramazani Y, Nemati A, Moshiri M, Motie MR, Jomehpour H, Etemad L. Gastric obstruction by opium packets: a case report. *Addict Health*. 2022;14(4):309-311. doi:10.34172/ahj.2022.1336

Received: December 22, 2021, **Accepted:** February 8, 2022, **ePublished:** October 29, 2022

Introduction

A “body packer” also known as “drug dealer” is a person who, voluntarily or mandatorily, ingests or swallows drug-filled packages into his/her body cavity, generally with an intention to avoid being detected by the law enforcement officers.¹ Detection of body packing is an important task for physicians because it requires immediate medico-legal attention and can be fatal as the packages may rupture.² The packages usually contain life-threatening doses of cocaine, opium, heroin, amphetamines, and methamphetamine derivatives enclosed in condoms, capsules, balloons, or plastic bags to resist rupture during long-distance drug smuggling.²⁻⁵ The size, weight, and content of the packets usually depend on the type of illicit drug, age of body packer, packer’s smuggling skills, and the length of time the packets need to stay in the body of the body packer.⁶ However, 50-100 packets, nearly one kilogram of drug, packed by a person is rarely reported.¹ Opium is abused in Iran commonly and it can be absorbed by inhalation, ingestion, and administration.⁷ In addition, it causes toxicity with numerous signs and symptoms which could be fatal in some cases.^{3,8}

This study reported the case of a body packer who swallowed a large amount of packed opium. The patient visited the emergency department with gastrointestinal (GI) manifestations and the packets were removed from his stomach by surgery.

Case Presentation

A 36-year-old male opium addict presented with epigastric pain to the emergency department of Imam Reza Hospital affiliated to Mashhad University of Medical Sciences (MUMS). The chief complains of the patient were epigastric pain and persistent vomiting. He was lethargic and set out swallowing 89 packets of opium for smuggling purposes four days earlier. The first day after swallowing packets, he had nausea and vomiting lasting up to the third day. He also experienced abdominal pain and anorexia. Thus, he used laxative drugs such as bisacodyl tablet and suppository as well as Senna for disposing the packets. On the fourth day after ingesting packets, he excreted only two packets through defecation while his abdominal pain and nausea had been exacerbated. Thus, he came to the emergency department with lethargy, diarrhea, nausea,



and abdominal pain. The physical examination revealed blood pressure: 130/90 mm Hg, heart rate: 70 beats/min, respiratory rate: 19 cycles/min, temperature: 37°C, and O₂ saturation: 94%. His pupils were pinpoint with normal light reactions. He had diffused abdominal tenderness without rebound tenderness that was more prominent on the epigastric area. The patient was referred to the toxicology department. The initial results of laboratory tests revealed respiratory and metabolic alkalosis (pH : 7.51, PCO₂:35.3 mm Hg, HCO₃⁻: 28.8 mEq/L, base excess; 7.1 mol/L). The urine toxicology screen was positive for opium. In the toxicology department, the patient was treated with supplemental water and electrolyte as well as intravenous pantoprazole 40 mg twice a day. He had a normal posterior-anterior chest radiograph; however, the abdominal upright and supine plain X-ray revealed a distended stomach with some amounts of air-fluid levels (air bubble) and also showed multiple cylindrical opacities with double-condom sign, corresponding to the anatomical location of the stomach (Figure 1A and B). Eight hours after the hospitalization, he defecated two more packets of opium and vomited one packet. Twelve hours after admission, the tenderness of his abdominal increased and abdominal muscle guarding and rebound tenderness were noted. Regarding the clinical and preclinical findings of GI obstruction, urgent laparotomy was performed and the patient underwent midline exploratory laparotomy under general anesthesia following preoperative antibiotics therapy. Although peritoneum, small intestine, and colon appeared normal and there were no palpable pathological findings, his stomach was expanded and the packets were easily palpable over it. The packets were taken out quickly one by one through a 4-cm incision on the body of stomach. Eventually, 84 packets came out from the stomach. The drug packets were four to six centimeters in size and contained 8 to 10 g of opium per packet (Figure 1 C & D). The total weight of packets, drugs, and containers, was 870 g. The packets were wrapped in some layers of plastic and tied at the ends. No more packets were found in small and large intestines. The patient was discharged in stable

condition four days later.

Discussion

Drug smuggling is a global issue that is constantly increasing; and for years, worldwide drug traffickers use body packers to evade the detection of their illicit drugs. Although, there are a lot of reports about body packers of cocaine and heroin, there are a few cases that embed opium packets in a large amount, like the case reported in this study who swallowed 89 packets.

More than half of prisoners have a history of narcotic substance abuse and addiction, hence emphasizing the prevalence of addiction in criminals.⁹ Accordingly, the patient in this study was an opium addict and the prevalence of opium addiction might be high in body packers like other criminals.

Body packers conceal their consignment in the GI or other orifices of the body and often wrap multiple small packages. Some layers are tied at the ends and core. Generally, substances that are utilized in the layers include plastic bag, plastic wrap, condom, balloon, cellophane, wax, rubber gloves, surgical ligature, paraffin, and fiberglass.^{10,11} Urine toxicology screening is frequently insensitive in the detection of body packing, particularly when there is no rupturing of the layers.¹² Therefore, individuals suspected of being body packers mostly undergo imaging examination. Nevertheless, as the packets are wrapped by special materials, such as foil or aluminum, they can disrupt detection by confirmation images. On the other hand, the experience of a radiologist can be useful for accuracy of detection.^{6,13} Plain abdominal radiography is frequently used as a screening test with a reported sensitivity of 47–95%.¹² Due to the large number of packets in our case, plain abdominal radiography was deemed necessary. Because of the definite diagnosis and deteriorated condition of the patient, the abdominal CT scan was not performed.

The case investigated in this study packed opium using several layers of thin plastics bound tightly. Even though the packets remained nearly 6 days in the stomach, there was no significant leakage or contamination, and

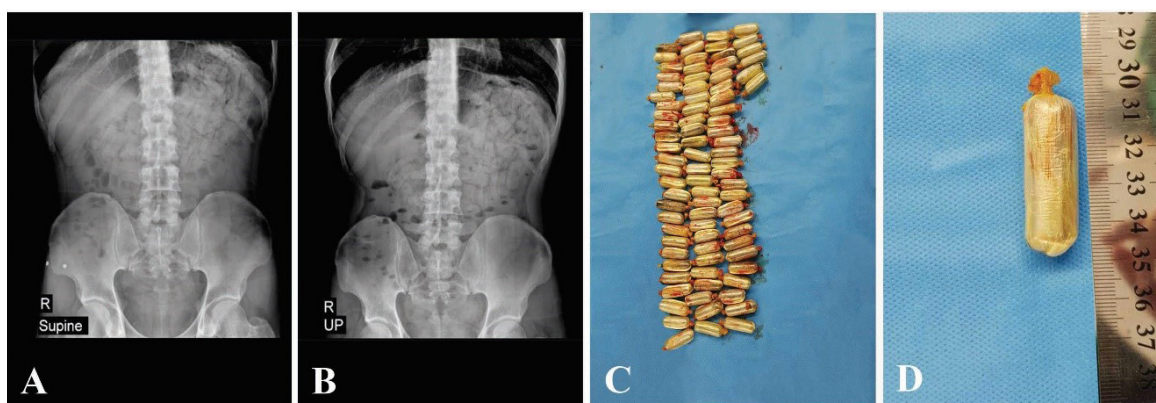


Figure 1. Abdominal supine (A) and upright (B) plain X-ray of the patient. The packs removed from patient's stomach (C and D)

the patient had no symptoms of opium overdose. The patient succeeded to defecate just four packets which were completely undamaged. The main complaints of body packers are: (1) being referred to the clinic by legal enforcement, (2) xenobiotics such as opiate or cocaine overdose, and (3) mechanical bowel obstruction or perforation. Obviously, when packets are too large to pass, obstruction happens at any point in the GI tract. Unfortunately, the individuals who transfer packets containing opioids appear to be at higher risk of GI obstruction.¹⁴ The surgical intervention is required in these cases.¹⁵

The case in this study also vomited many times but only one packet came out. Vomiting could be due to GI obstruction and medications taken. However, the patient could not vomit the packages due to their large size.

Conclusion

The present study reported the case of a body packer who swallowed a large number of opium packets and presented with symptoms of GI obstruction. A large number or size of ingested drug packets in body packers can induce GI obstruction which requires surgical intervention.

Acknowledgements

This study received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. The authors would like to thank the patient for his cooperation. They would also like to thank the staff of poisoning and surgery wards and operation room of Imam Reza Hospital for their kind cooperation.

Author Contributions

Conceptualization: Mohammad Moshiri, Mohammad Reza Motie.

Data curation: Ahmad Nemati, Hamid Jomehpour.

Formal Analysis: Ahmad Nemati, Hamid Jomehpour.

Funding acquisition: Ahmad Nemati, Hamid Jomehpour.

Supervision: Leila Etemad.

Writing – original draft: Yeganeh Ramazani, Ahmad Nemati, Hamid Jomehpour.

Writing – review & editing: Leila Etemad, Mohammad Moshiri.

All authors: Final approval of the manuscript.

Conflict of Interests

There are no conflicts of interest.

Consent for Publication

The authors certify they have obtained all required patient consent forms. The patient has given his consent for his images and other clinical information to be reported in the article. The patient was assured of anonymity.

References

- Najafi N, Montazeri M. Heroin body packer's death in Shiraz, Iran; a case report and literature review. *Asia Pac J Med Toxicol.* 2017;6(1):34-7. doi: [10.22038/apjmt.2017.8476](https://doi.org/10.22038/apjmt.2017.8476).
- Wankhade VK, Chikhalkar BG. Body packing and intra-vaginal body pushing of cocaine: a case report. *Leg Med (Tokyo).* 2018;31:10-3. doi: [10.1016/j.legalmed.2017.12.004](https://doi.org/10.1016/j.legalmed.2017.12.004).
- Rismantab-Sani S, Soltani B, Soltani S, Memarian A. Risk factors of mortality due to acute opium poisoning: a report from the largest intoxication referral center in Iran. *Addict Health.* 2017;9(2):96-102.
- Gebresellassie HW. Body-packing: a case of hundred condoms of illicit drug swallowed by a trafficker. *MOJ Clin Med Case Rep.* 2017;6(5):00173. doi: [10.15406/mojcr.2017.06.00173](https://doi.org/10.15406/mojcr.2017.06.00173).
- Pinto A, Reginelli A, Russo A, Fabozzi G, Giovine S, Romano L. Body Packing. In: Lo Re G, Argo A, Midiri M, Cattaneo C, eds. *Radiology in Forensic Medicine: From Identification to Post-mortem Imaging.* Cham: Springer International Publishing; 2020. p. 181-188.
- Abedzadeh AA, Iqbal SS, Al Bastaki U, Pierre-Jerome C. New packaging methods of body packers: role of advanced imaging in their detection. A case study. *Radiol Case Rep.* 2019;14(5):627-33. doi: [10.1016/j.radcr.2019.03.002](https://doi.org/10.1016/j.radcr.2019.03.002).
- Alizadeh A, Zheani Asoudeh M, Abdi F, Moshiri M, Balali Mood M, Etemad L. Epidemiological pattern of acute pediatric poisoning in Mashhad, Iran during 2011-2013. *Int J High Risk Behav Addict.* 2017;6(2):e33707. doi: [10.5812/ijhrba.33707](https://doi.org/10.5812/ijhrba.33707).
- Moshiri M, Hedjazi A, Rezazadeh-Shojaie SM, Etemad L. Child death due to dermal opium application: a case report. *Iran J Toxicol.* 2020;14(1):59-62. doi: [10.32598/ijt.14.1.59](https://doi.org/10.32598/ijt.14.1.59).
- Khalooei A, Mashayekhi-Dowlatabad M, Rajabalipour MR, Iranpour A. Pattern of substance use and related factors in male prisoners. *Addict Health.* 2016;8(4):227-34.
- Hammoumi W, Abid H, Benjira R, Lahmidani N, Lahlali M, Lamine A, et al. Endoscopic extraction of "body packing" about a case. *Saudi J Med.* 2021;6(5):112-4. doi: [10.36348/sjm.2021.v06i05.009](https://doi.org/10.36348/sjm.2021.v06i05.009).
- Abouzahir H, Nya S, Belhouss A, Benyaich H. Death following cocaine poisoning in body packer: two cases report and review of the literature. *Int J Forensic Med.* 2020;2(2):14-6.
- Esterson YB, Patel V, Nicastro J, Friedman B. Plain radiography may underestimate the burden of body packer ingestion: a case report. *Clin Imaging.* 2017;44:57-60. doi: [10.1016/j.clinimag.2017.04.006](https://doi.org/10.1016/j.clinimag.2017.04.006).
- Lan K, Doyle E. Is abdominal x-ray (AXR) or computed tomography (CT) of the abdomen the most appropriate imaging modality for the detection of illegal substances concealed, taking into consideration the sensitivity, specificity and radiation dose? *J Forensic Radiol Imaging.* 2019;16:50-6. doi: [10.1016/j.jofri.2018.12.001](https://doi.org/10.1016/j.jofri.2018.12.001).
- de Beer SA, Spiessens G, Mol W, Fa-Si-Oen PR. Surgery for body packing in the Caribbean: a retrospective study of 70 patients. *World J Surg.* 2008;32(2):281-5. doi: [10.1007/s00268-007-9316-8](https://doi.org/10.1007/s00268-007-9316-8).
- Álvarez Llano L, Rey Valcalcel C, Al-Lal YM, Pérez Díaz MD, Stafford A, Turégano Fuentes F. The role of surgery in the management of "body packers". *Eur J Trauma Emerg Surg.* 2014;40(3):351-5. doi: [10.1007/s00068-014-0388-5](https://doi.org/10.1007/s00068-014-0388-5).