

Successful Treatment of a Heroin Package in the Stomach by Endoscopic Method: A Case Report

Midede Bir Eroin Paketinin Başarılı Olarak Endoskopik Yöntemle Tedavisi: Olgu Sunumu

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ABSTRACT

Aim: The term "Body packing" refers to a method that is commonly used for carrying illegal drugs in the body of a carrier. The drug is typically prepared in small plastic packages and either ingested via oral route or inserted into body cavities including the rectum and the vagina. Another term, "body stuffing," is used for instances when a drug package is quickly swallowed to avoid an imminent police arrest.

Case Report: Herein, we report the endoscopic removal of heroin packages in a 25-year-old male patient carrying multiple such packages in his stomach and intestines, which could not be removed by medical treatment in the emergency department (ED).

Conclusion: Upper gastrointestinal endoscopy (UGIE) is a safe alternative to surgical removal of selected cases of body packing.

Keywords: Foreign body, heroin, upper gastrointestinal system endoscopy

ÖZ

Amaç: "Vücut paketleme" terimi, bir taşıyıcının vücudunda yasadışı uyuşturucuları taşımak için yaygın olarak kullanılan bir yöntemi ifade eder. İlaç tipik olarak küçük plastik paketler içinde hazırlanır ve ya oral yolla alınır ya da rektum ve vajina dahil vücut boşluklarına sokulur. Başka bir terim olan "vücut doldurma", bir uyuşturucu paketinin polisin yakında tutuklanmasını önlemek için hızla yutulduğu durumlar için kullanılır.

Olgu Sunumu: Bu olguda Midesinde ve bağırsaklarında çok sayıda eroin paketi olan 25 yaşındaki erkek hastanın acil serviste medikal tedavi ile takip sonunda çıkmayan eroin paketinin endoskopik yolla çıkarılmasını sunuyoruz.

Sonuç: Üst gastrointestinal endoskopi, seçilmiş vakalarda vücuttaki paketlerin cerrahi olarak çıkarılmasına güvenli bir alternatiftir.

Anahtar Kelimeler: Yabancı cisim, eroin, üst gastrointestinal sistem endoskopi

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Introduction

Drug and narcotic substance addiction is an important social and medical problem. The supply and trafficking of narcotic substances are international crimes. Despite the measures taken by the states in this regard, drug traffickers attempt to continue this trade with illegal and unconventional methods. The most frequently trafficked products are cannabis, cocaine, and heroin (1).

The "body packing" method was first reported in the medical literature in 1973 (2). The transport process is planned by placing the illegal substances in the body cavities after preparing them in small plastic packages of 8-10 grams (3). Carriers usually carry between 50 and 100 packages on their bodies, but this number may increase; often, packages can be transported in the gastrointestinal system by swallowing them or inserting them into the rectal or vaginal cavities (1). Patients who are brought to the ED should be definitely asked about the type of material packaged, the way the packages are wrapped, and the amount of the packaged materials. Although the carrier's statements on this matter are often unreliable, it is essential to carefully evaluate the responses given by the carrier. Carriers may often apply to the ED without symptoms. In this regard, physicians should identify possible complications that may occur in the carrier and plan their examinations accordingly. A patient history should include questions about abdominal pain, vomiting, inability to pass gas or stool, and the patient should be examined for serious complications such as gastrointestinal perforation and ileus (4). In addition, it should not be forgotten that as a result of a possible rupture of the packages, severe toxicological symptoms such as agitation, hypertension, tachycardia, mydriasis may occur, even culminating in the death of a carrier (5).

The diagnosis of body packages is usually made by plain abdominal radiography and computed tomography (CT) (1). Carriers can be followed conservatively as long as they are asymptomatic, or discharge of the packages can be induced with laxatives. Surgery is the treatment of choice for removal of ingested drug packages, especially in cases where drug leak and resultant intoxication is a concern (5). Removal of swallowed drug packages from the gastric lumen by an upper gastrointestinal endoscopic procedure can also be applied, although reported data on this technique is rare (4). In this report, we present a patient who was brought to the ED and claimed that he was carrying heroin packages in his body, which could not be discharged naturally and were removed by the endoscopic method.

Case Report

A 25-year-old male patient was detained by the narcotic branch police teams at the airport and brought to the ED on suspicion that he was transporting drugs in capsules. The patient stated that he was a drug dealer and that he sloppily

packed and swallowed the heroin, the amount of which he did not know exactly. He was concerned about the leakage of the package contents due to poor packaging and asked for their removal.

He was asymptomatic and appeared healthy upon his arrival at the ED. He had an arterial blood pressure of 124/73 mmHg, pulse rate of 76/min, body temperature of 36.7°C, and respiration rate of 14/min. Upon examination his abdomen was soft; bowel sounds were increased; there were no signs of abdominal guarding or rebound tenderness; digital rectal examination revealed stool contamination. Other system examinations were normal. His admission complete blood count was normal, as was his initial routine serum chemistry including renal and hepatic functions, as well as serum electrolytes. An upright plain abdominal radiogram (UPAR) taken to evaluate the foreign bodies swallowed by the patient revealed multiple foreign bodies in the abdomen, but it did not give a clear idea about the location and amount of the packages (figure 1). Intravenous contrast-enhanced abdominal CT imaging was planned to clarify the diagnosis. It showed foreign bodies that may belong to multiple smooth-contoured and specially prepared packages at the level of the stomach, intestines and colon (figure 2).



Figure 1. Suspected foreign bodies seen in UPAR

The general surgery and gastroenterology departments were consulted for follow-up and monitoring possible complications. In the ED, treatment for shortening the gastrointestinal transit time was administered via oral and rectal routes until all packages were removed naturally against the risk of opening the packages in the gastrointestinal system. The patient was followed in the ED for 4 days, and most of the heroin packages were discharged naturally from the rectum. However, a heroin capsule was retained in the gastric body and the patient complained of nausea and vomiting despite medical treatment; thus, UGIE was planned. The patient was informed about the possible complications of the ingested heroin package, and

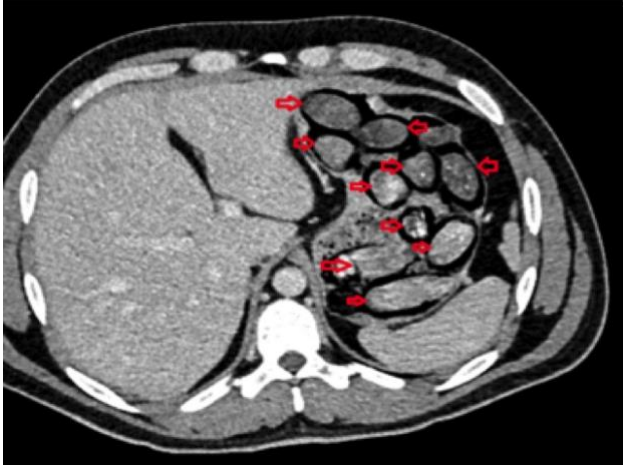


Figure 2. The abdominal CT shows multiple foreign bodies that may belong to smooth-contoured packages at the level of stomach, intestines and colon.

treatment options were discussed. The package removed by UGIE looked intact. The patient, who did not develop any complications during the endoscopy and during the follow-up, was discharged under the supervision of the police. Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

Discussion

Body-packing refers to the act of hiding illicit drugs in various compartments, anatomical spaces, or external orifices of the human body. Cocaine is the most commonly smuggled narcotic substance worldwide, which is followed by heroin, methamphetamines, and cannabinoids. A "carrier" can usually transport approximately 1 kg of any smuggled drug, in a divided form into 50–100 packages (6). Our patient was also carrying multiple heroin packages.

Most of the carriers are usually asymptomatic at the time of presentation. Although body packers may be an unreliable source of information, they should be questioned whether they carry packages, the wrapping technique used for the packages, the number of packages carried, and the presence of gastrointestinal symptoms suggestive of ileus or GIS perforation. Packages are sometimes felt during an abdominal, vaginal, or rectal examination. The advances in the packaging system developed by the carriers have currently reduced the chance of package rupture to as low as 5%. The presence of "toxic syndrome" or "toxidrome" in a patient suggests leakage from the drug package. Patients with signs and symptoms suggestive of cocaine toxicity such as agitation, hypertension, tachycardia, mydriatic pupils, and diaphoresis should be assumed to be carrying large doses of deadly heroin packages (3-5).

The packages could not be seen on plain radiogram of the abdomen taken on admission. It has been reported that plain radiograms have a sensitivity ranging between 40% and 90% for detection of drug packages. This creates a need for

performing advanced imaging studies such as such as abdominal ultrasonography, CT, and contrast passage radiograms for individuals suspected to carry body packages. It is sufficient for diagnosis to see foreign bodies with smooth contours within the luminal organs of the gastrointestinal system in CT (7). In our patient, a large number of packaged foreign bodies was visualized in the abdomen by a plain radiogram, but the latter did not give a clear idea about the location and quantity of the packages. Therefore, an abdominal CT was taken to clarify the diagnosis, which showed a large number of smooth-contoured, specially prepared foreign bodies at the level of the stomach, intestines, and colon.

Urine toxicology has an unclear role in making the diagnosis of body packages. Several large studies have reported that it has a wide range of sensitivities, ranging from more than 90 to less than 40%. Hence, owing to inconsistent sensitivity values reported in the literature, we believe that urine toxicology is not suitable as a screening test to detect body packers (8). Blood or urine toxicological tests were not performed in our patient, either.

Asymptomatic patients should be closely monitored in the intensive care setting until the passage of all packages is complete. In the conservative method, intestinal irrigation and laxatives can be of benefit in case of reduced intestinal motility to the foreign body (3). Patients presenting with sympathomimetic toxicity should be evaluated urgently and taken to the operating room for surgical decontamination. Although there are opinions that the use of endoscopic methods for removing the packages in asymptomatic patients is not preferred due to the risk of piercing the latex dressing of the packages, there are publications in which the removal of the packages was successfully performed in selected cases (9,10).

UGIE can be used to remove packages in cases with a small number of packages, a shorter time from swallowing packages to hospital presentation, and packages that has not passed beyond the pylorus. Only a small number of reports in the medical literature have reported successful removal of drug packages using UGIE. To our opinion, this results from migration of swallowed packages past the pylorus during the time spent in police custody in an asymptomatic carrier or until the carrier becomes symptomatic in complicated cases. Additionally, UGIE has a potential of harming the patient by causing the packages to burst or punctured and their contents to spill over into the gastrointestinal system at endoscopic package removal. Endoscopic retrieval is particularly challenging when a body packer has swallowed a large number of packages. Nevertheless, several case reports have reported that UGIE procedure could successfully remove drug packages (4). Our patient also swallowed many heroin packages, and he was administered oral and rectal treatment to shorten the gastrointestinal

transit time in the ED. Most of these heroin packages came out of the patient's rectum during his 4-day follow-up in the ED. However, UGIE was used for successful removal of a heroin capsule that was retained in the gastric body despite medical treatment during follow-up. The patient, who did not develop any complications during the endoscopy and during the follow-up, was discharged with full recovery and delivered to the police forces.

Conclusion

Difficulties are still encountered in the management of patients with body packages containing drugs. Although surgical method is the preferred treatment method in symptomatic cases, UGIE is considered as a minimally invasive treatment option that may be appropriate in selected cases where there are no signs of toxicity, the time between swallowing body packages and arrival to the hospital is short, and the number of swallowed packages is small.

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Authors' Contribution: FY conceived the case report. FY, MFA contributed reagents, materials, analysis tools or data. FY, MFA, EDA, OA drafted the manuscript and all authors contributed substantially to its revision.

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