Consequence of Body Packing of Illicit Drugs

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**Background:** During the last decade, increased rates of drug traffic have led the smugglers to use various methods. One of these methods of illicit drug smuggling is body packing. Smuggling by intra-abdominal concealment is called "body packing". In this research, mortality rate was investigated due to body packing in Tehran.

**Methods:** A descriptive study (case series) was designed on all corpses referred to the Forensic Medicine Organization of Tehran between April 1999 - December 2000. Demographic data such as sex, age, marital status, addiction, job, education level, type of opioid and the weight, number of packets, and results of blood and urine morphine tests by thin-layer chromatographic method were investigated.

**Results:** Continental system of law is used in Iran and 0.06% of the referred corpses to Forensic Medicine Organization of Tehran were body packers. There were 12 cases, all of them were men. The mean age of body packers was 43 years (range 20 – 62). The minimum weight of the packets was 20 g and the maximum weight was 1400 g (mean = 501 g). The minimum number of the packets was one and the maximum number of the packets was 48. Twenty five percent of the corpses were putrefied and one corpse was mummified. None of the body packers had academic education nor were employed. Nine of them lived in cities. Twenty five percent of them were intravenous addicts. The corpses were found mostly in terminals (17%), roads (58%), and cities (25%).

**Conclusion:** Hospital physicians may neglect this type of gastrointestinal foreign body if they are not aware of the body packer syndrome. Body packing should be suspected in anyone with signs of drug-induced toxic effects after a recent arrival on city terminals or when there is no history of recreational drug use.

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**Keywords:** Body packer • body packing • body stuffer • fatal toxicity • Iran

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**Introduction**

Concealment and transit of narcotic materials (e.g., opium and heroin) is one of the major businesses with high benefit in all over the world. Body packing is the term used for the intracorporeal concealment of illicit drugs mainly opium, heroin, cocaine, amphetamines, 3,4-methylenedioxymethamphetamine (ecstasy), and marijuana or hashish. Body packers may also be called "swallowers," "internal carriers," "couriers," or "mules."

Body packers usually carry about one kg (2.2 lb) of drug, divided into 50 – 100 packets of 8 – 10 g each, although persons carrying more than 200 packets have been reported. Each packet of opium, heroin, cocaine, or amphetamine contains a life-threatening dose of the drug. These drugs are wrapped in the forms of capsules, condoms, balloons, plastic bags, or finger of latex gloves and located in various anatomic cavities or body orifices. Identification of suspected persons is difficult for the customs agents at the national borders or airports.

The body packers are especially prone to rupture of the packets and consequent toxicity. In addition, gastrointestinal (GI) obstruction may occur and also there are some reports about upper GI hemorrhage caused by prolonged pressure of the packets on the gastric mucosa.

Suspicious signs such as persons’ behavior,
origin and destination of their traveling, doubtful declaration about their journey, halitosis, seating without mobility, and the specific smell of their mouth because of the effect of gastric acid on the packets cover may notify the police of body packing cases.6

Plain abdominal radiography, computerized tomography, contrast study of the stomach and bowel, urinary morphine test, and defeation of the packets help the physician to confirm the diagnosis of body packing in a suspicious person.6–8

The patients who present with the toxicity or mechanical GI obstruction, should undergo immediate surgical removal of the packets.10 The asymptomatic body packers should be kept under close observation in the ICU, although some authors prefer surgery.5, 10

The number of undetected cases is unknown. The percentage of intoxication may actually be decreasing as packet production improves. Though being at a high risk, only a few body packers die regarding the toxicity due to leakage of an internally concealed container and most of them carry their cargo successfully.11

Forensic physicians and toxicologists sometimes discover the concealed drug containers through autopsy of some dead cases with unknown causes.5

To determine the mortality of body packers in Tehran, the present study was conducted between April 1999 and December 2000. This investigation has focused on the criminality and forensic aspects of body packing.

Materials and Methods

This was a descriptive study conducted in the Forensic Medicine Organization of Iran in Tehran. This organization examines all suspicious or unknown deaths in Tehran. A questionnaire was completed for all corpses who were referred to Forensic Medicine Organization of Iran in Tehran, and those who were diagnosed as body packing were selected. Parameters assessed in this study consisted of age and gender of the deceased person, type, weight, and number of packets, packaging, location of the packet in the body, cause of death, location of finding the corpse, and the results of blood and urinary morphine tests by thin-layer chromatography (TLC) method.

From April 1999 through December 2000 all corpses of body packers who were referred to Forensic Medicine Organization in Tehran were included. There were no exclusion criteria.

All corpses who were referred to Forensic Medicine Organization were examined by forensic physicians and finally autopsy was done by them. Ethics committee approval was not required for this study.

Results

In this descriptive study, 12 cases of body packers were identified among approximately 16,000 autopsies during the period from 1 April 1999 through 30 December 2000. They were all males. The age of the victims, type of illicit drugs, weight and number of packets, location of packets in autopsies, and the site of corpses/bodies found are shown in Table 1. As indicated in the Table 1, most of the packets were found in the stomach (8 cases).

Before the autopsies, eight out of these 12 cases had no diagnosis for the cause of death. Three cases died due to ingestion of packets of illicit drugs and one case died due to myocardial infarction.

After the autopsies, the ultimate causes of death were acute intoxication due to leakage or rupture of packets in nine cases, intestinal obstruction, perforation, and peritonitis secondary to perforation in two cases, and remaining of the packets in spite of surgery in one case.

On physical examination, there were intravenous puncture sites in three corpses and tattoos in two cases. There were putrefying deterioration in three corpses and a corpse was mummified because he was buried in a salt lake for about 3 months. In autopsy, two packets were found in the small bowel, and the final cause of death was ‘intoxication due to leakage of the packets’.

The dead body packers were unemployed. They had no academic education.

In all cases, the small pieces of ruptured packets made it difficult to estimate the exact number of packets, which were torn. The packets were made from balloon, plastic bags, and multifold rubber or plastic. Normally there were two or more layers.

Discussion

According to the results of this study, the number of dead body packers in an 18-month period in Tehran was much higher than the report from eastern Europe where only 19 body
smugglers in 138 institutes of forensic medicine were found between 1980 and 1990.2

There were only four dead body packers during 1983 – 1995 in the Institute of Forensic Medicine in Hamburg, which is much less than our study.6

American Federal Agencies reported that body packing has increased recently, possibly because of the increased borders security after the events of 11 September 2001.

New York’s Kennedy International Airport reported 193 body packing arrests during the seven months from October 2001 through April 2002, compared with 202 cases during the entire preceding year.3

In a report regarding 50 body packer deaths during 10 years (1991 – 2001) in New York City, most of deaths (37/50) were caused by acute intoxications due to leakage or ruptured drug packets in the GI tract, which is similar to our results (9/12). The number of packets found in that report ranged from 1 to 111 (mean 46). The weight of the combined packets ranged from 9.4 to 1200 g (mean 377). The age of body packers ranged from 19 to 57 years (mean 37.1). The preliminary diagnosis for causes of deaths included 42 acute intoxications, five intestinal obstructions/bowel perforations, one gunshot wound, one intracerebral hemorrhage due to hypertensive disease, and one undetermined cause. Of the 50 decedents, 42 were transporting opiates, 4 cocaine, and 4 both opiates and cocaine. There were 9 deaths from 1990 – 1995 and 41 from 1996 – 2001. Of the 41 deaths between 1996 and 2001, only six involved cocaine.

In New York City there has been an increase in body packer deaths from the early 1990s to the late 1990s. Along with this increase there is a marked predominance of opiate body packer deaths with few cocaine deaths.12 These statistics are much bigger than our study and include cocaine that was not found in our autopsies. Although the mean number of packets in our study (18) was lower than the New York report (42), the mean weight for each packet (501 g) is higher than them (377 g) which indicates more risk of intoxication.

Opium was the most common substance that has been smuggled by the 12 deceased Iranian body smugglers and no case of cocaine and amphetamine was observed. The following reasons may account for it:

- Opium has an extensive and long-term history of usage in Iran and it has been cited as a curative substance in traditional medicine.
- Opium is produced in Afghanistan, in the immediately border of Iran.
- Cocaine is expensive and is not produced in this region.

Hospital physicians may neglect this type of GI foreign body if they are not aware of the body packer syndrome. Body packing should be suspected in anyone with signs of drug-induced toxic effects after a recent arrival on city terminals.

**Table 1. Data of 12 male dead body packers in Tehran.**

<table>
<thead>
<tr>
<th>Age (year)</th>
<th>No. of packets</th>
<th>Weight of packets (g)</th>
<th>Packed material</th>
<th>Location of packets</th>
<th>First found situation</th>
<th>Corpse/Body finding area</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>1</td>
<td>20</td>
<td>Opium</td>
<td>Only stomach</td>
<td>Dead*</td>
<td>City</td>
</tr>
<tr>
<td>55</td>
<td>5</td>
<td>150</td>
<td>Opium</td>
<td>Stomach + small bowel</td>
<td>Coma</td>
<td>City</td>
</tr>
<tr>
<td>48</td>
<td>9</td>
<td>210</td>
<td>Heroin</td>
<td>Only stomach</td>
<td>Cardiopulmonary arrest</td>
<td>Outside road</td>
</tr>
<tr>
<td>30</td>
<td>12</td>
<td>300</td>
<td>Heroin</td>
<td>Only stomach</td>
<td>Cardiopulmonary arrest</td>
<td>Outside road</td>
</tr>
<tr>
<td>20</td>
<td>14</td>
<td>450</td>
<td>Opium</td>
<td>Small + large bowel</td>
<td>Dead*</td>
<td>Terminal</td>
</tr>
<tr>
<td>49</td>
<td>15</td>
<td>400</td>
<td>Opium</td>
<td>Only stomach</td>
<td>Cardiopulmonary arrest</td>
<td>Outside road</td>
</tr>
<tr>
<td>39</td>
<td>15</td>
<td>310</td>
<td>Heroin</td>
<td>Only stomach</td>
<td>Death*</td>
<td>Outside road</td>
</tr>
<tr>
<td>39</td>
<td>17</td>
<td>470</td>
<td>Opium</td>
<td>Stomach + large bowel</td>
<td>Conscious</td>
<td>Terminal</td>
</tr>
<tr>
<td>62</td>
<td>22</td>
<td>500</td>
<td>Opium</td>
<td>Stomach + small and large bowel</td>
<td>Dead*</td>
<td>City</td>
</tr>
<tr>
<td>45</td>
<td>28</td>
<td>710</td>
<td>Heroin + opium</td>
<td>Stomach + small and large bowel</td>
<td>Cardiopulmonary arrest</td>
<td>Outside road</td>
</tr>
<tr>
<td>40</td>
<td>35</td>
<td>1100</td>
<td>Opium</td>
<td>Only large bowel</td>
<td>Cardiopulmonary arrest</td>
<td>Outside road</td>
</tr>
<tr>
<td>49</td>
<td>48</td>
<td>1400</td>
<td>Opium</td>
<td>Stomach + small and large bowel</td>
<td>Dead*</td>
<td>Outside road</td>
</tr>
</tbody>
</table>

*No admission in hospital.
or when there is no history of recreational drug use.

References