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Cocaine Body-Packer: Scan Aspect

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Abstract **Case Report**

Intracorporeal drug transport or body-packer is a potential medical emergency, as leakage of packer contents can lead to fatal overdose. Abdominal CT scanning is commonly used to diagnose this entity. We report two suspected cases of body-packer, abdominal CT scan made it possible to make the diagnosis.

Keywords: body-packer, CT scan, cocaine.

INTRODUCTION

Body-packing, a common means of trafficking illicit drugs, was first described in 1973 by Deitel and Syed [4]. The body-packer is used to smuggle drugs such as heroin, cocaine, amphetamine, hashish and ecstasy. Most body packers are asymptomatic [6]. However, the risks incurred by this portage are major. The complications can be mechanical digestive or massive acute intoxication, by absorption of narcotic substances following a rupture of the envelope of the sachets [5- 8].

The objective of our study was to evaluate the image quality, diagnostic yield of body packs, and accuracy of detection of body packer findings in suspected abdominal CT.

CASE REPORT

Case1

This is a 26-year-old Brazilian man, brought to the emergency room by the Moroccan police after his arrival at Marrakech airport, suspected of intracorporeal transport of drugs, upon admission he was asymptomatic, with no signs of drug poisoning or overdose, on examination consciousness was clear, well oriented to space and time, blood pressure was 130/82 mm Hg, heart rate is 89 beats per minute, respirations are 15 cycles per minute, the abdomen was flexible without contracture.

Given the context, an abdominal CT without injection of contrast product was carried out and to objectify multiple foreign bodies (n = 24), oval in shape, spontaneously hyperdense.

(Spontaneous average density between 240 and 300 HU) visible at the level of the lumen of the entire colonic frame, measuring approximately 44 x 17 mm (figure 1 and 2), after the patient admitted to having swallowed cocaine capsules, he was hospitalized in visceral surgery and received an oral laxative, during compliance in the hospital the patient remained well and spontaneously expelled rectally 24 oval capsules each measuring 45 mm.

A control abdominal CT was carried out and no longer showed any foreign body, it was then handed over to the police authorities, the examination of the parts sent to the laboratory to confirm that they were drug capsules, particularly cocaine.

Case2

This is a 24-year-old Brazilian woman, brought to the emergency room by the Moroccan police after her arrival at Marrakech airport, suspected of intracorporeal transport of drugs, upon admission she was asymptomatic, with no signs of drug poisoning or overdose, on examination consciousness was clear, well oriented to space and time, blood pressure was 135/90 mm Hg, heart rate is 98 beats per minute, respiration is 17 cycles per minute, the abdomen was flexible without contracture.

Given the context, an abdominal CT without injection of contrast product was carried out and to

objectify multiple foreign bodies (n = 26), oval in shape, spontaneously hyperdense.

(Spontaneous average density between 240 and 300 HU) visible at the level of the lumen of the entire colonic frame, measuring approximately 45 x 17 mm (figure 3), after the patient admitted to having swallowed cocaine capsules, she was hospitalized in visceral surgery and received an oral laxative, during compliance at the hospital the patient remained well and spontaneously expelled rectally 26 oval capsules each measuring 45 mm.

A control abdominal CT was carried out and no longer showed any foreign body, it was then handed over to the police authorities, the examination of the documents sent to the laboratory confirmed that they were drug capsules, particularly cocaine.

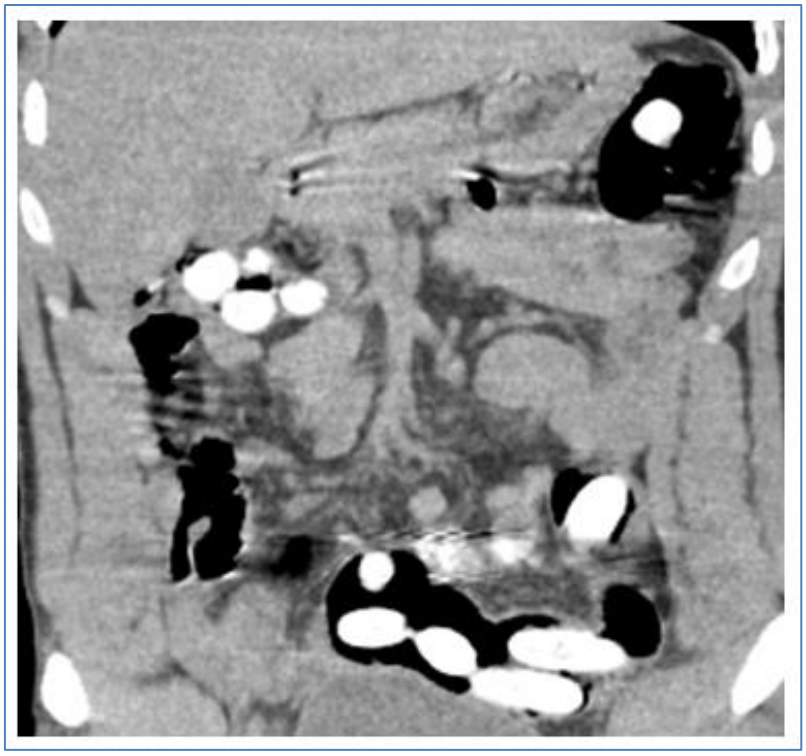

Figure 1

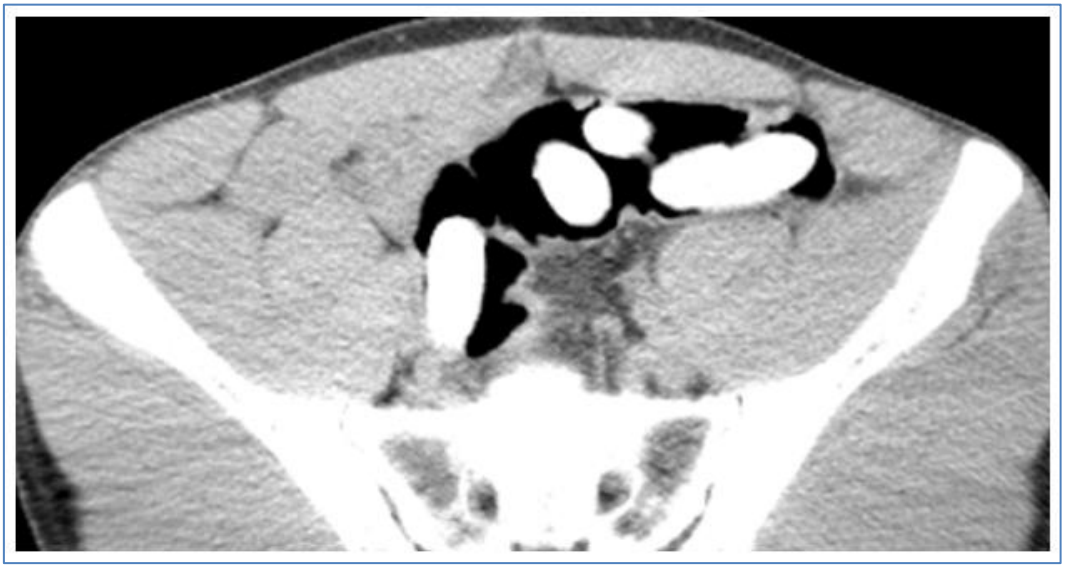

Figure 2

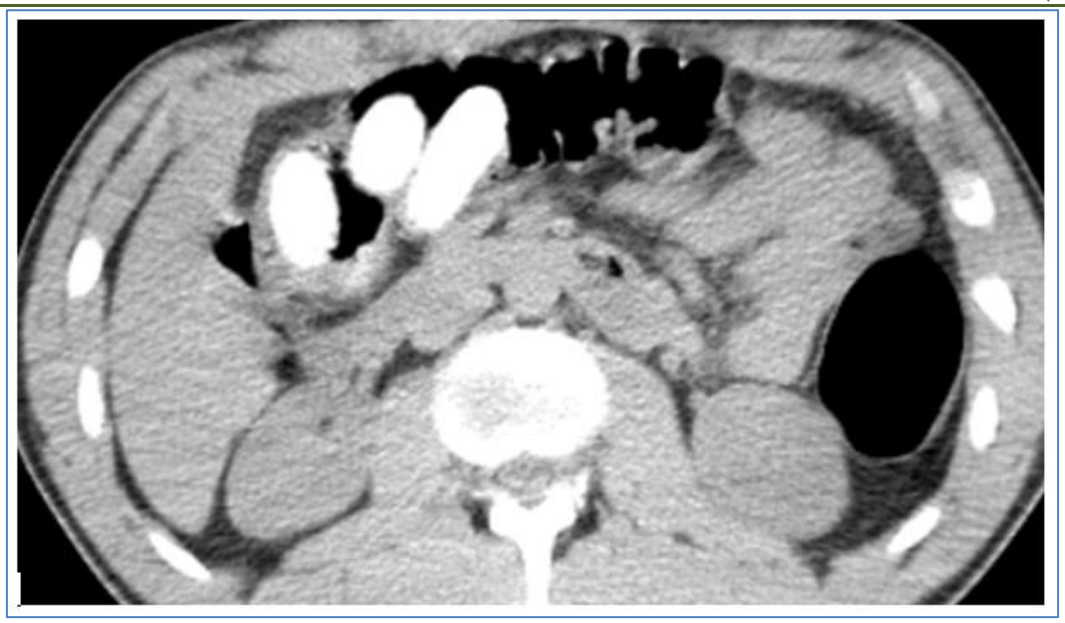

Figure 3

DISCUSSION

This illegal trade generally begins in producing countries (such as Bolivia, Colombia, Turkey, Thailand) and ends in consuming countries, such as the USA or the European Union [7].

The diagnosis of body packer can be made by several techniques, such as standard radiography, ultrasound (US), computed tomography (CT), and magnetic resonance imaging (MRI) [1- 11].

Over the last decade, following the development of packaging techniques, the use of CT scanning has become more frequent, because this technique seems specific compared to radiography and ultrasound [11], in our cases CT was realized as a first intention.

Axial CT images can be reshaped coronal and sagittal to improve detection of capsules, which typically appear hypodense in a round or oval shape surrounded by a small amount of gas.

Our study revealed 100% sensitivity and specificity for the detection of cocaine packets, which is consistent with most studies conducted on this subject, although Hahn *et al.*, reported a case of false negative observed on an abdominal scanner. Helical with oral contrast in 2004 [7].

The body packers in our cases ingested cocaine packets of 15 grams per packet, with a number of packets between 24 and 26 packets per person, body packers ingest more than one type of drug and generally carry around 1kg divided into 50 to 100 packets of 8 to 10 g each, although people carrying more than 200 packets have been described [12].

Pure cocaine powder is a low-attenuating substance measuring approximately −200HU [2], while cocaine stones, crack (cocaine base 51%) and pressed cocaine powder mixed with another substance have a high density [8- 11]. Second, density is also determined by how the cocaine is packaged as well as the type of packaging material used. The density of cocaine in our study was between 240 and 300 HU, similar to the density found by other studies [10- 13], the density may vary depending on the preparation of each cocaine, the drug measurements performed by Schmidt and al showed a cocaine density of 216HU similar to the density found in our study [10].

CONCLUSION

In the diagnosis of Body-packer the abdominal scanner without injection of contrast medium is a fast, precise and easy to use means with high sensitivity and specificity. Using a CT scan, a radiologist can accurately diagnose body-packer and determine the number, type and location of the packs. CT scanning is also useful in identifying possible complications that may occur in bodypackers.

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