



COCAINE-FILLED CAPSULE DETECTED AFTER FIREARM INJURY: A CASE REPORT

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Abstract: Emergency departments are facing increasing drug-related health problems with difficult medicolegal and social consequences. A 25-year-old male with no past medical history arrived at our emergency department. He was brought to the emergency room of our hospital by the security forces, as he suffered a gunshot wound while traveling to a place. The cocaine-filled capsule was seen on plain abdominal film. The plain abdominal film is the most commonly used radiological tool to detect 2-8 cm drug-filled packages within the gastrointestinal tract of body packers. In a study that analyzed the role of drugs in firearm deaths in New York between 1990 and 1998, more than half of firearm deaths had positive drug toxicology. Physicians working in the emergency unit should be prepared for secondary diagnoses. In addition, different examination and imaging findings should be kept in mind in suspicious cases.


Keywords: Emergency service, Gunshot wound, Cocaine-filled capsule

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1. Introduction

Emergency departments are facing increasing drug-related health problems with difficult medicolegal and social consequences. In recent years, drug trafficking has not only increased worldwide, but the gastrointestinal tract has also been used more frequently as a vehicle for drug trafficking (Fineschi et al., 2002; Traub et al., 2003 Asil and Dertli, 2017). Illicit drug trafficking by ingestion can have serious health consequences (Traub et al., 2003). These people are known as 'body packers,' 'body stuffers,' 'body pushers,' 'drug mules,' 'couriers,' 'swallowers,' or 'internal carriers,' and are referred to collectively as 'suspected internal drug traffickers' (SIDTs) (Alfa-Wali et al., 2016). Body packers receive large quantities of high-purity drugs in securely wrapped packages, often machine-made using durable material (Group, 2013). The body pushers hide medication packs in the vagina or rectum (Group, 2013). Various types of drugs are trafficked, including cocaine, heroin, marijuana, and amphetamines. The most common is cocaine (Alfa-Wali et al., 2016).

Although the diagnostic management of body packers has often been described in the literature, the optimal imaging modality of body stuffers has not been adequately defined and remains controversial (Schmidt et al., 2008). Plain abdominal films have limited utility, owing to the small size and amount of drugs ingested by body stuffers, as opposed to the huge drug bags

incorporated by body packers (Schmidt et al., 2008). In this article, we present a body packer patient who was brought to the emergency room with a gunshot injury and was caught with a cocaine-filled pack (CFP) on plain abdominal film.

2. Case Report

A 25-year-old male with no past medical history arrived at our emergency department. He was brought to the emergency room of our hospital by the security forces, as he suffered a gunshot wound while traveling to a place. When the patient's detailed history was taken, it was learned that he traveled frequently. Upon arrival, his blood pressure was 140/90 mmHg, pulse 90 beats per minute, respiratory rate 22 breaths per minute, pulse oximetry 95% on room air, and temperature of 39.6°C. Physical examination revealed a bullet wound entry in the lower left abdomen. The rest of the physical examination was unremarkable. In the plain abdominal film, a cocaine capsule was seen on the upper left side, and a bullet was seen in the lower left abdomen at the superior level of the pelvis (Figure 1). The patient was consulted with the general surgeon. Subsequently, the patient was hospitalized for further treatment.





Figure 1. Plain abdominal film (red arrow: cocaine-filled packet, yellow arrow: bullet).

3. Discussion

Body packing and body stuffing are unique clinical situations that often present both a diagnostic and therapeutic dilemma for the emergency medicine physician due to the patient's often unreliable or reluctant history. The plain abdominal film is the most commonly used radiological tool to detect 2-8 cm drug-filled packages within the gastrointestinal tract of body packers (Hergan et al., 2004). However, due to limited contrast resolution, conventional radiographs (CR) of body packers only reveal the presence of drug containers in 40-90% of cases (Schmidt et al., 2008). Therefore, up to 60% of these ingested large medication bags may remain undetected. The much smaller CFP ingested by body stuffers is thus even more easily missed by plain films (Schmidt et al., 2008). In this case, the patient was detected incidentally on plain radiograph.

In a study that analyzed the role of drugs in firearm deaths in New York between 1990 and 1998, more than half of firearm deaths had positive drug toxicology (Galea et al., 2002). In a study conducted among children and adolescents who died from gunshot wounds, the detection of ethanol and/or illicit drugs was 56% in homicide and 53% in suicide groups (Gill et al., 2003). In the presented case, since the patient had a gunshot wound, the association of illicit drugs was high in parallel with the high rate in the literature. In addition, since the patient is a frequent traveler, he has a high probability of body packer and body stuffer syndrome. Therefore, emergency physicians should be more careful during the physical and radiological examination of such patients.

4. Conclusion

Physicians working in the emergency unit should be prepared for secondary diagnoses. In addition, different examination and imaging findings should be kept in mind in suspicious cases.

Author Contributions

The percentage of the author(s) contributions is present below. All authors reviewed and approved final version of the manuscript.

	N.V.	M.D.	A.S.
C	50	35	15
D	50	25	25
S	50	30	20
DCP	50	30	20
DAI	50	30	20
L	50	30	20
W	50	30	20
CR	50	30	20
SR	50	30	20
PM	50	30	20
FA	50	30	20

C=Concept, D= design, S= supervision, DCP= data collection and/or processing, DAI= data analysis and/or interpretation, L= literature search, W= writing, CR= critical review, SR= submission and revision, PM= project management, FA= funding acquisition.

Conflict of Interest

The authors declared that there is no conflict of interest.

Ethical Approval/Informed Consent

Written an informed consent form was obtained from the patients for the case presentation, and necessary information was given to the family.

References

- Alfa-Wali M, Atinga A, Tanham M, Iqbal Q, Meng AY, Mohsen Y. 2016. Assessment of the management outcomes of body packers. *ANZ J Surgery*, 86(10): 821-825. <https://doi.org/10.1111/ANS.13226>.
- Asil M, Dertli R. 2017. Successful endoscopic treatment of an unusual foreign body in the stomach: A package of heroin. *Turkish J Trauma Emergen Surgery*, 23(4): 354-356. <https://doi.org/10.5505/TJTES.2016.93462>.
- Fineschi V, Centini F, Monciotti F, Turillazzi E. 2002. The cocaine "body stuffer" syndrome: a fatal case. *Forensic Sci Inter*, 126(1): 7-10. [https://doi.org/10.1016/S0379-0738\(02\)00011-7](https://doi.org/10.1016/S0379-0738(02)00011-7).
- Galea S, Ahern J, Tardiff K, Leon AC, Vlahov D. 2002. Drugs and firearm deaths in New York City, 1990-1998. *J Urban Health: Bullet New York Acad Med*, 79(1): 70. <https://doi.org/10.1093/JURBAN/79.1.70>.
- Gill JR, Lenz KA, Amolat MJ. 2003. Gunshot fatalities in children and adolescents in New York City. *J Forensic Sci*, 48(4): 2003004. <https://doi.org/10.1520/jfs2003004>.
- Group CMOE. 2013. The medical care of suspected internal drug traffickers – independent report of the chief medical officer' s expert group. <http://www.dh.gov.uk/health/2013/01/independent->

- report-sidts/ (accessed date: September 24, 2021).
- Hergan K, Kofler K, Oser W. 2004. Drug smuggling by body packing: What radiologists should know about it. *European Radiol*, 14(4): 736–742. <https://doi.org/10.1007/S00330-003-2091-5>.
- Schmidt S, Hugli O, Rizzo E, Lepori D, Gudinchet F, Yersin B, Meuwly JY. 2008. Detection of ingested cocaine-filled packets—Diagnostic value of unenhanced CT. *European J Radiol*, 67(1): 133–138. <https://doi.org/10.1016/j.ejrad.2007.07.017>.
- Traub SJ, Hoffman RS, Nelson LS. 2003. Body packing — The internal concealment of illicit drugs. *N Engl J Med*, 349: 2519-2526.