Body Stuffers: Can We Do Better ?

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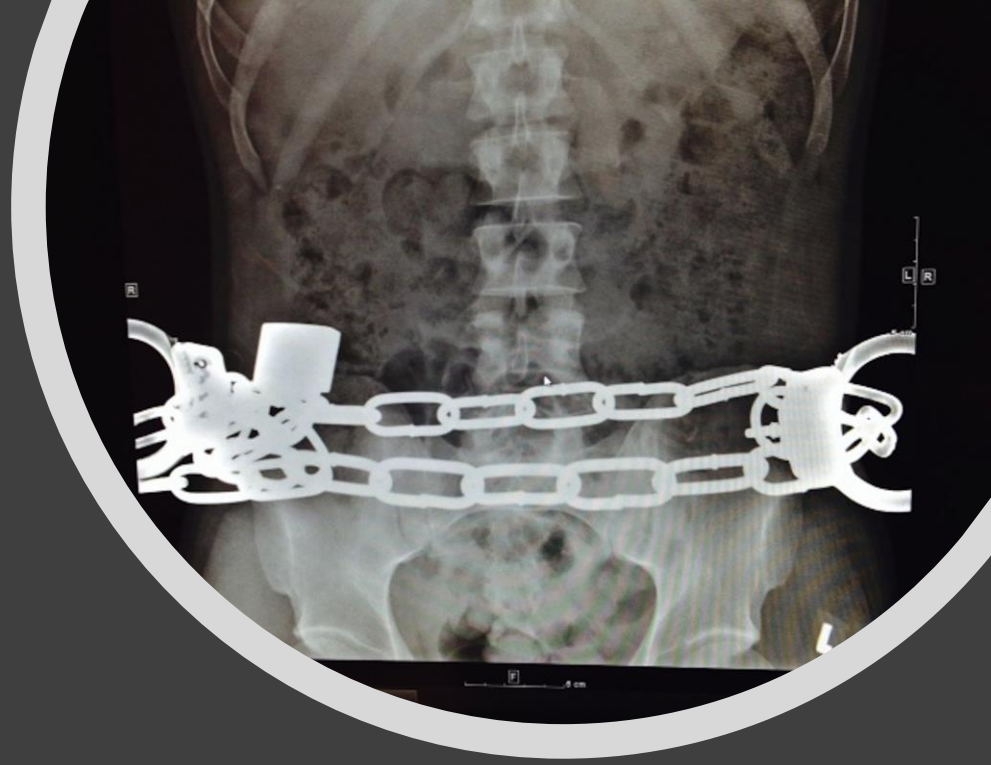
Body Stuffers vs Body Packers

- “Body stuffing” usually involves swallowing small amounts of loosely wrapped substances as a means of concealment.

- In contrast “body packing” usually involves well packaged substances and a larger number of packages.

Imaging

- There is no gold standard test for detecting concealed drug packets.
- The detection rate will increase with the number ingested and experience of the reporting clinician.
- The sensitivity of abdominal x-ray in the detection of drug packets has been reported as 47-95%.
- A recent review found the sensitivity of CT without oral contrast to be 70% in body packers and 37% in body stuffers. In this series the sensitivity was slightly lower when oral contrast was used.



Booker R, Smith J and Rodger M. “Packers, pushers and stuffers – managing patients with concealed drugs in UK emergency departments: a clinical and medicolegal review.” EMJ 2009; 26: 316-20

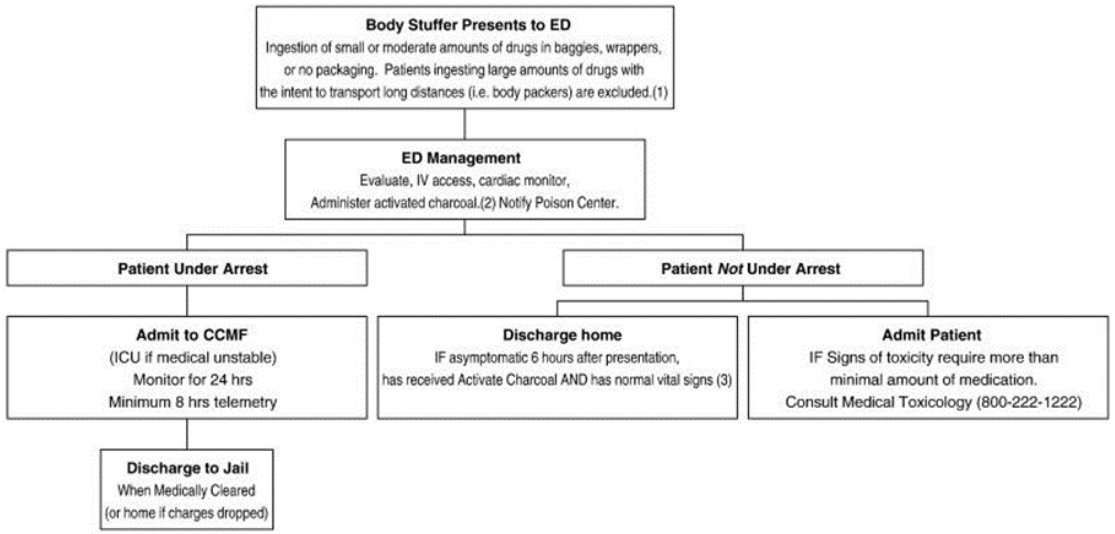
Management Guidelines

- Varies greatly between hospitals and countries:
  - 6 hours observation can discharge if asymptomatic
  - 6 hours if no high risk features
  - 12 hours, or overnight (avoid discharging afterhours), is usually sufficient
  - 24 hours for methamphetamine
  - Observed until packaging passed and its expulsion confirmed by repeated negative abdo CT.

Box 1 Risk factors for complications associated with concealed drugs

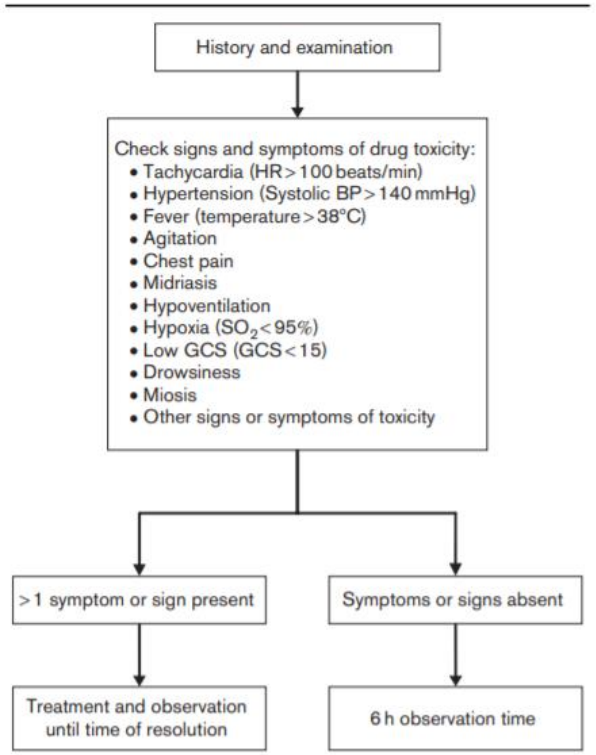
- Abdominal pain
- Vomiting
- Poisoning
- Improvised/home-made packaging (McCarron and Wood[7] type 1 packets)
- Large total quantity of drug (especially for body stuffers)
- High number of packets (>50)
- Large size of packets
- Delayed passage of drug packets (>48 h)
- Passage of fragments of packaging in stool
- Poisoning in a co-transporter
- Previous abdominal surgery (greater risk of obstructing secondary to adhesions)
- Concomitant drug usage, especially constipating agents
- Abnormal vital signs
- Positive urine drug test following previous negative test (may herald packet breakdown or rupture)

6 h Observation Protocol



1. Patients that ingest drugs with the intent to smuggle (body packers) should be admitted to the ICU for decontamination and observation.
2. Competent patients may refuse charcoal, document competence and understanding of risks.
3. Observation period (on cardiac monitor) may occur in ED OBS. Patients that refuse observation should be informed that that they are at high risk for seizures, stroke and cardiac arrest if they ingested these drugs. The benefit of observation is that these complications would occur in a setting where they would receive immediate treatment. The discussion with the patients should be documented.

This is a guideline. The treating physician may choose not to follow this guideline based on individual case circumstances. Medical Toxicology can be reached at any time by dialing 800-222-1222.



Algorithm for the management of body stuffers. GCS, Glasgow Coma Scale; HR, heart rate.

1. Moreira M, Buchanan J and Heard K. "Validation of a 6-hour observation period for cocaine body stuffers." Ann Emerg Med 2011; 29(3): 299-303
2. Yamamoto etal. Management of body stuffers presenting to the emergency department. European Journal of Emergency Medicine. 23(6):425–429, DECEMBER 2016

Management

- Studies of body stuffers presenting to hospital have found low complication rate of less than 5%.
- Those that developed new or worsening features of drug toxicity did so within 6 h of presentation.
- The optimum observation period is unknown however an observation period of 6 h has been proposed.

Body Stuffers: Can we do better ?

- There are no current Australian recommendations for management of body packers
- This study aimed to describe the characteristics, management and outcomes of body stuffers presenting to the Prince of Wales Hospital.
- Retrospective review of body stuffers presenting to a tertiary emergency department from January 2016 and June 2019.

Method

- Body stuffers were defined as those ingesting a packaged substance as a means of escaping detection, not for transportation across borders (body packers).
- Patient were identified from POWH toxicology database and Firstnet using the search terms “body stuffer” and “foreign body ingestion”.
- The medical records were reviewed for demographic and ingestion data, clinical progress and outcomes.

Results

- 39 patients were identified
- 38 (97%) males
- Median age 28 y (IQR: 24 – 38 y)
- 36 (92%) from correctional services facility
- 17 (44%) reported swallowing packages the remainder were viewed on CCTV but denied ingestion.

Results: 39 pts

- Median number of packages ingested was 1 (IQR: 1 – 3, range:1-10, n=30).

- **Drug concealment (reported or seen to ingest):**
  - 27 balloon,
  - 4 zip locked bag
  - 1 condom

- **Drugs ingested:**
  - tobacco (n=15),
  - amphetamines (n=7),
  - opioids(n=5)
  - benzodiazepines (n=3),
  - unknown (n=13).

- Six reported ingesting more than one drug.

Clinical Symptoms

9 (25%) presented with features of drug toxicity including headache, vomiting, abdominal pain, tachycardia, drowsiness and agitation.

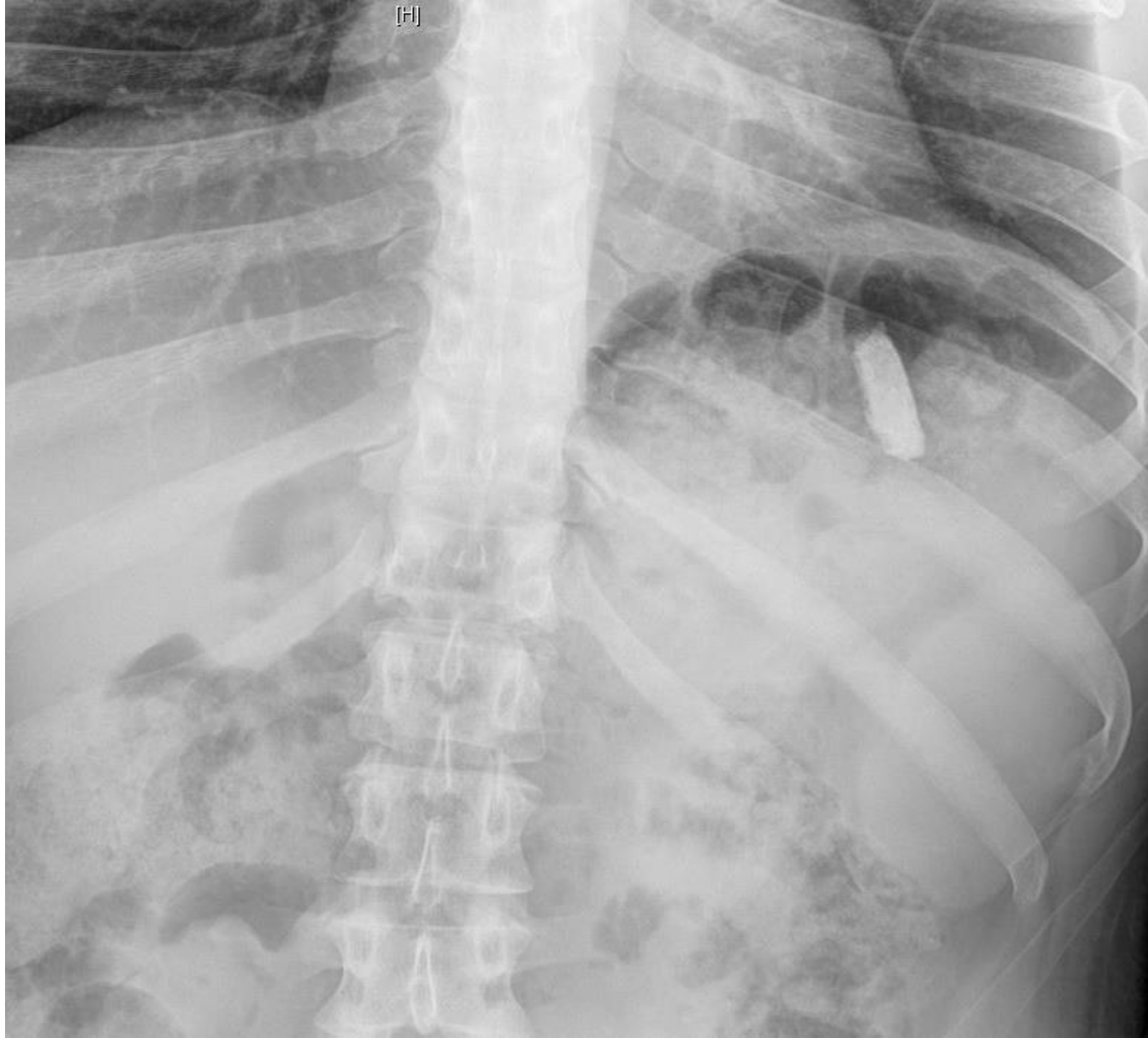
Of these 2 were agitated, HT and tachycardic and required benzodiazepines

3 were drowsy but rousable

Imaging

- Performed in 16 (41%):
  - 14 abdominal X-rays,
  - 7 chest X-rays and
  - 2 abdominal CT-scans

1 patient had a query foreign body identified on abdominal X-ray: “there is a rectangular radiodensity over left upper abdo which could represent a foreign body”



Management

- 19 (50%) were offered oral polyethylene glycol, 9 refused.
- Median length of stay: 4.5 h(IQR:1.6–15h, range: 0.5-120 h).
- 2 passed fragments of a balloon during period of observation
- All prisoners discharged back to dry cells.

Outcomes

- 1 patient became symptomatic post-admission:
  - 31F ingested heroin
  - Asymptomatic on arrival 4 h post arrival noted to be drowsy.
  - Prolonged drowsiness for 4 days did not require naloxone.
  - Day 3 passed fragments of balloons
  - MRI showed resolving PRES

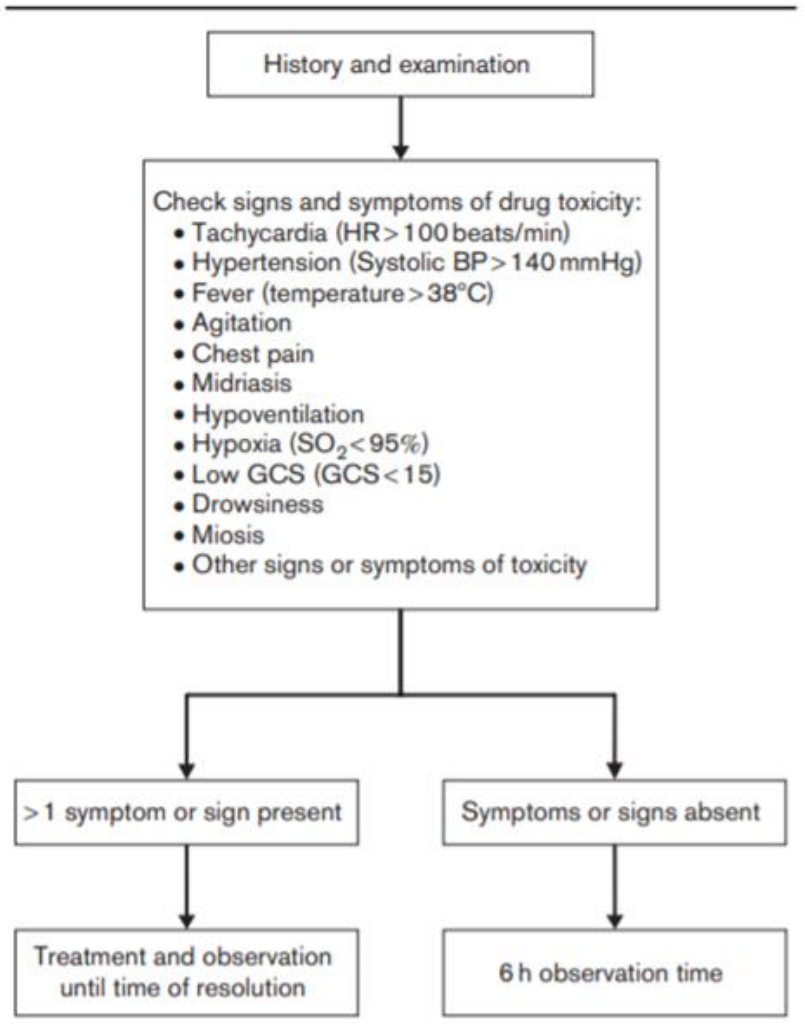
- Two patients represented within 24 h:
  - one with abdominal pain – 32 M stated to ingested 10 balloons of methamphetamine observed for 12 h then discharged
  - agitation and tachycardia – 28 M 3 balloons of MDMA – observed and discharged.

Discussion

- Our study found that most body stuffers presented asymptomatic (75%). Those that developed symptoms did so within the first 6 h of presentation.
- This is in contrast to retrospective studies from the UK and the US where > 70 % had symptoms of drug toxicity on presentation.
- Imaging did not aid diagnosis c/w previous studies
- Limitations:
  - Retrospective review
  - Predominately prisoners ingesting tobacco – low risk ingestion

Conclusion

- Imaging does not aid diagnosis in suspected body stuffers
- As per previous studies we recommend that body stuffers, require a period of observation for at least 6 h or until asymptomatic, with instruction to return if symptoms develop.
- Guidelines are required to improve the wide variation in management



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