In response to “Detection of body packing by magnetic resonance imaging: a new diagnostic tool?”

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We read with interest the recent report concerning the use of magnetic resonance imaging (MRI) to identify intestinal packets of illicit drug in suspected body packers [1]. We feel that several clarifications are required, however, before the authors' conclusions can be accepted.

While it is not surprising that MRI can detect such packets, this study does not address how MRI performs in comparison to other diagnostic modalities. Computed tomography (CT) and abdominal ultrasound are more routinely available, though neither have exceptional negative predictive values [2–4]. It is also understood that in some localities the practice is to detain suspicious travelers and simply await the passage of several bowel movements. There was no mention of whether MRI was the only diagnostic procedure used in the population studied. It is stated that one subject underwent CT, but it is unclear whether that was the only case. If other diagnostics were also used in these patients an assessment of the positive and negative predictive values could have occurred.

Additionally, it is unclear who interpreted the MRI images and whether they were blinded to the objectives of the study. Assuming it was considered unethical to expose subjects to multiple tests, the study conclusions would have been strengthened if the interpreters were asked to analyze a group of MRI images which included the study population and a negative control population without being told that some were suspected body packers.

We wondered how the ethical concerns regarding the evaluation of subjects in custody of legal authorities were addressed. For example, the authors state that all subjects signed informed consent, but it is unclear what options were presented and if there was the potential for coercion.

Finally, the authors state that body packers use “parasympathomimetic drugs” to prevent defecation while in transit. These medications are cholinergic and stimulate gastrointestinal motility, a potentially undesirable situation for a body packer. Antimuscarinic (anticholinergic; parasympatholytic) medications, which result in decreased peristalsis, are likely what the authors intended to write.

In conclusion, we agree that MRI has the potential to be a useful test in the evaluation of travelers who are suspected of being body packers due to the lack of radiation exposure. Considering the cost and lack of availability of MRI and the lack of comparison with plain radiographs or CT, or simply awaiting defecation, broad implementation cannot be recommended at this time.

References

1. Bulakci M, Ozbakir B, Kiris A (2012) Detection of body packing by magnetic resonance imaging: a new diagnostic tool? *Abdom Imaging*. doi:10.1007/s00261-012-9972-5
2. Sengupta A, Page P (2008) Window manipulation in diagnosis of body packing using computed tomography. *Emerg Radiol* 15(3): 203–205
3. Traub SJ, Hoffman RS, Nelson LS (2003) Body packing—the internal concealment of illicit drugs. *N Engl J Med* 349(26):2519–2526
4. Hahn I-H, Hoffman RS, Nelson LS (2004) Contrast CT scan fails to detect the last heroin packet. *JEM J Emerg Med* 27(3):279–283