



### Travelling the Lead by Body Packers

**Hossein Hassanian-Moghaddam**, Nasim Zamani

*Toxicological Research Center, Department of Clinical Toxicology, Loghman-Hakim Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

**Objective:** To determine whether drug couriers, who conceal packs containing illicit substances in their gastrointestinal tracts to transport them across international borders (opium body packers), were carrying lead-contaminated opium.

**Methods:** Opium body packers were investigated during February 2016–October 2017 in an observational prospective study. Airline and train passengers who were observed to not eat, drink, or move much (in order not to pass their packs) and suspected by police to be body packers were referred by police to toxicology referral centers for further investigation.

**Results:** Five suspected opium body packers (three women and two men), ranging in age from 21–55 years were referred to LHHPC from a train station (three) and a local international airport (two) by police. At the time of initial evaluation, they were awake with normal vital signs and physical examinations. The packers reported ingesting 130, 300, 700, 1000 and 1500 grams of opium (5–50 packs each) in 20- to 250-gram packs. Abdominopelvic computerized tomography (CT) scans revealed several oval radiopaque packets, with delicate metal opacities visible throughout their gastrointestinal tracts. Polyethylene glycol (PEG) was administered to all five packers, resulting in expulsion of the packs; no packs had any leakage. Because of the specific pattern of radiopaque densities noted on the CT scans, ingestion of lead-contaminated opium was suspected. Blood lead levels (BLLs) in the four packers were 17, 10, 11, 2 and 8  $\mu\text{g}/\text{dL}$  (levels  $\geq 10\mu\text{g}/\text{dL}$  are abnormal in adults). Lead concentration in samples from the packs sent for to the local chemical laboratory of Shahid Beheshti University of Medical Sciences was 3,553 ppm by atomic absorption technique.

**Conclusion:** The opium in the market was highly contaminated by lead, including the opium smuggled by the body packers. This contamination might be caused by adulteration by distributors. Persons in countries receiving opium smuggled through Iran are in danger of lead poisoning.