RADIOLOGICAL QUIZ

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Plain radiograph abdomen of a 27 year old male
from a referral hospital of an International Airport.

Answer to quiz on pg. 66

Fig. 1 : Plain x-ray abdomen

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RADIOLOGICAL DIAGNOSIS: Body packers.

Body packers are drug traffickers who smuggle drugs by intracorporeal concealment. Drug smuggling is increasing and international drug couriers seek to evade detection by concealing drugs within their body. They may be "Swallowers" who swallow the drug packages or "Stuffers" who insert packages into the rectum. One drug courier arrested in South Australia had swallowed 143 packs of heroin and morphine [1]. The insertion of illicit drugs into the vagina and ear [2] has also been described. Body packers are generally male, out of 9 referred to a hospital near Tokyo International Airport Japan, only one was a female [3].

Cocaine, heroin, opium, opiate (morphine and codeine) or marijuana are being smuggled internationally. These drugs relieve pain, soothe senses, produce hallucination and cause sleep. Cocaine (methylbenzoyllecgonine) is the commonest drug being smuggled. It is an alkaloid prepared from leaves of the *Erythroxylon* plant and marketed as crystals, granules or white powder [1,3,4].

The packages are constructed in a variety of ways using condoms, toy balloons, fingers of gloves or tubular latex packages in 3 or 4 layers [5] to prevent break or leakage.

There is a broad spectrum of clinical presentation from the entirely asymptomatic but anxious body packer to acute cocaine intoxication. Break or leakage of a single package can lead to massive fatal cocaine poisoning [4]. Classically acute intoxication is manifested by agitation diaphoresis, palpitation, hyperthermia, disorientation and hallucinations followed by metabolic and respiratory acidosis, such cases are usually fatal [1-3,5]. Several cases of acute hepatotoxicity and hepatocellular necrosis from cocaine have been reported [6]. The wrapping may serve as semipermeable membrane. Body packer may present with signs and symptoms of acute intestinal obstruction [7] possibly the packages become entangled.

Initial history and examination is generally not

helpful. The diagnosis is established by urine analysis and radiology. Detection of metabolites of cocaine in the urine is possible by enzyme immunoassay and the results can be made available in 10 min [3].

Plain radiograph abdomen is a well established method in diagnosis of cocaine body packers [5,8]. It also determines the type and number of packages and their position in the gastro intestinal tract. Plain radiograph abdomen of the body packer "Stuffer" depicted in the quiz shows 37 cocaine packages lying in the colon. Contrast study of the bowel has been reported as unreliable [5]. In cases where plain X-ray abdomen is controversial computed tomography can confirm the diagnosis by demonstrating the packages within the bowel.

Management for asymptomatic patients by a trial of conservative approach will lead to uncomplicated elimination of all packages. However rupture or leak of a package can lead to death so early surgical intervention is ideal if the packages are disintegrating or likely to do so [4].

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