EMERGENCY CASEBOOK

Factitious hyperamylasuria by a nurse: symptom of Munchausen's syndrome

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A 30-year-old nurse presented with abdominal pain and tenderness. Her blood tests, including amylase, were normal. Urinary amylase was extremely high. The source of the increased urinary amylase was found to be the patient's saliva — she had spit into her urine sample. Subsequent investigation showed that she had Munchausen's syndrome.

A 30-year-old nurse presented to the Department of Emergency Medicine, Haifa, Israel, because of abdominal and right flank pain, mild dysuria in the last 2 days, but no fever, vomiting, constipation or diarrhoea. She had a history of hypertension, hypothyroidism and diverticulosis of the colon. She underwent an appendectomy a few years previously and reported allergies to non-steroidal anti-inflammatory drugs, penicillin, cephalosporins, gentamycin, flagyl and iodine.

On examination, the patient's temperature was 37.4°C, pulse rate was 63/min, and blood pressure was 143/88 mm Hg. Her pain score was 10 (by visual analogue scale). She was in a generally good condition. Her abdomen was soft, with marked tenderness in the right lower quadrant and the right flank. The rest of the examination was normal. Laboratory tests showed a white cell count of 7100/μl (58% neutrophils), haemoglobin 11.5 g% and platelets 274000/μl. Blood chemistry, including glucose, urea, sodium, potassium, bilirubin and amylase, was in the normal range. Urinary amylase was 3295 U/L (normal range 160–460). The gynaecological examination was unremarkable. Transvaginal sonography, except for a 2.5-cm diameter simple cyst in the right ovary, was normal, as was the abdominal radiograph.

The patient was treated initially by an intravenous infusion of normal saline and papaverin, with transient mild relief of her pain. Owing to her declared allergy to nonsteroidal anti-inflammatory drugs, we intended to give her pethidine 50 mg intravenously. She insisted that 75 mg of pethidine should be given rather than 50 mg, according to 1 mg/kg weight, as she had received previously.

At this point, the possibility of malingering was raised, but there was no explanation for the markedly raised level of urinary amylase and the normal levels of blood amylase in the recent onset of abdominal pain. The suspicion of factitious hyperamylasuria of salivary origin was raised. When she was asked to repeat the urine test, a staff member saw her spitting into her urine sample. The urine sample was sent to the laboratory, where it was again found to contain extremely high amylase levels. The patient refused the insertion of an indwelling catheter, so we could not obtain an uncontaminated urine sample. She continued to have abdominal pain, and asked for analgesics to relieve the pain. Her abdomen remained soft and she was discharged reluctantly after an overnight observation, with the advice to use a non-narcotic analgesic for pain relief.

As a nurse, the patient was probably aware of the limitations of our laboratory to discriminate between pancreatic and salivary amylase. Our first suspicion was that she was seeking narcotics; hence she requested the higher dose of pethidine.

This could explain her allergies to so many drugs, including non-steroidal anti-inflammatory drugs. A patient with such a high pain score would not resist the insertion of a urinary catheter for a better diagnosis, unless she knew the diagnosis!

After the patient was discharged, we tried to obtain more information from her family doctor about her visits to other hospitals. We learnt that she was a nurse working in another hospital, and her family doctor worked in the emergency department of the same hospital. She had visited emergency departments of other hospitals many times with non-specific complaints. She had even brought her grandmother to hospital many times, also with non-specific complaints, insisting on having her admitted to hospital. According to her doctor, she had no history or signs of drug misuse, and he related her behaviour to Munchausen's syndrome.

Contamination of a urine sample with various body fluids is a common method of malingering.^{1–3} As emergency physicians, we must be aware of contaminated urine samples by blood (from self-induced needle stick),^{2,3} spitting¹ or the use of dyes to render the urine test pathologic. Patients in these cases seek narcotics,¹ bed rest or admission,³ as this patient.

Most routine laboratory assays of urinary amylase do not discriminate between isoenzymes of salivary and pancreatic origin.^{1,4} Specific tests should be used when the source of amylase is not clear.^{1,4} When it is not possible to check for amylase isoenzymes, an indwelling urinary catheter should be inserted to obtain an uncontaminated urine sample. Discrepancy between the urine samples that the patient gave and the sample achieved by a catheter makes the diagnosis of malingering.

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