Case reports


Vick vapour rub intoxication

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Summary

So far as we are aware there has been no previous report of Vick vapour rub intoxication presenting as iron deficiency anaemia with minimal liver functional impairment. We present this case for its interest and to illustrate the rewards of a routine and detailed drug-taking history.

Case report

A 66-year-old housewife was referred as a case of anaemia which had failed to respond to several courses of oral iron over a 2-year period. Her complaints were of intermittent epigastric discomfort and flatulence occurring immediately after food and partially relieved by alkali mixtures. For 3 months she had noticed increasing abdominal distension.

She passed semi-formed orange-brown motions daily, and denied weight loss. She took analgesic tablets (Codis and Paracetamol), totalling at least 6/week over many years, for arthralgia affecting the ankles, knees and neck. In India as a child she had been given arsenic, 1 drop daily on alternate weeks over 12 months as prophylaxis against malaria infection.

On initial examination the abnormal findings were that she was pale with typical 'rain drop' pigmentation of the face and neck as a result of arsenic therapy. The abdomen was symmetrically enlarged with a smooth, firm, liver edge palpable 2 fingerbreadths below the costal margin. Rectal examination revealed orange-brown faeces.

Her haemoglobin was 7.8 g/100 ml, MCV 75, MCHC 29-2 and a film showed anisocytosis and anisochromasia compatible with iron deficiency; the ESR was 22 mm/hr. The serum alkaline phosphatase was raised to 18 K.A. u but all other serum biochemical tests were normal. Urine analysis was normal. Chest X-ray and barium meal examinations showed no evidence of neoplasm.

On admission for further investigations she admitted eating at least one bottle (38 g) of Vick vapour rub every day for 2 years, for relief of her smoker's cough.

A repeat blood film showed toxic granulation of neutrophil leucocytes. A 3-day faecal fat analysis on a ward diet gave a total of 9 g of fat. She had weakly positive occult blood tests on three occasions. Liver scan confirmed hepatomegaly with a fairly extensive patchy uptake of indium hydroxide 113 m/citric acid colloid. Liver biopsy was normal apart from mild fatty infiltration.

Withdrawal of Vick vapour rub and oral iron supplementation resulted in the rapid disappearance of toxic granulation, and a rise in haemoglobin to 13 g/100 ml with a fall in serum alkaline phosphatase to 12 King-Armstrong u after 3 months. At this time
BSP retention at 25 min was 20% (normal 15%) and 13% at 45 min (normal < 5%). Her appetite returned with a 7 kg gain in weight. Her abdomen remained distended and her liver easily palpable.

Ten months after the initial presentation she was clinically unchanged and still taking occasional analgesics. Her haemoglobin was 12 g/100 ml, alkaline phosphatase 9 King-Armstrong u, negative occult bloods in normal coloured stools and normal serum biochemistry except for a slightly raised 5 nucleotidase at 15 mu/ml (normal 4–11). Repeat BSP retention at 25 min was 45% and at 45 min was 40%. Repeat liver scan showed no change in the size of liver but a more extensive patchy impairment of colloid uptake. Laparoscopy showed the right lobe of the liver to be completely encased in fat whilst the left appeared normal. Liver biopsy was unchanged.

Comment

We calculate that she took a total of 28 kg of Vick vapour rub over 2 years. Vick vapour rub contains menthol 2-82%; camphor 5-25%; ol. terebinth 4-77%; ol. eucalypt. 1-35%; ol. myrist. 0-48%; thymol 0-1%; ol. cedri 0-45%.

The aetiology of the iron deficiency anaemia is attributed to the chronic ingestion of Vick vapour rub because she did not respond to simple iron supplementation until the consumption of the offending substance was stopped. The mechanism is uncertain but the vapour rub may have caused gastric mucosal irritation with persistent occult blood loss or it may have interfered with the absorption of dietary iron. It is also possible that the transport to, and utilization of iron by the bone marrow could have been disturbed, as judged by the presence of toxic granulation of neutrophils. This may indicate that whatever vapour rub was absorbed may have affected granulopoiesis as well as erythropoiesis.

We believe her liver impairment to be due to the direct toxic effects of the absorbable constituents of Vick vapour rub. On biopsy, however, the liver showed only mild structural abnormalities compared with the disordered liver scan and liver function tests.

She states that she has not taken any Vick vapour rub for 1 year but we will follow her progress with interest. In particular we will continue to monitor her liver function which has not yet recovered.

An unusual self-inflicted injury of the breast

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Summary

A self-inflicted injury of the breast can present difficult diagnostic problems as is illustrated by the case report. A young woman had excoriated her left nipple causing profuse haemorrhage. Following excision of the nipple and a breast biopsy, the patient presented 1 month later with an abscess caused by the introduction of stones and gravel into the biopsy wound.

Case report

The 26-year-old unmarried woman first presented to the Surgical Clinic at Addenbrooke’s Hospital with a 6-month history of massive bleeding from the left nipple. She had previously been seen at another East Anglian Hospital, where a diagnosis of dermatitis artefacta was suspected. Biopsy of the nipple there had shown changes of chronic inflammation.

Her relevant past history included a mild anxiety state at the age of 18 and an abortion at the age of 24. Following the abortion, a left breast abscess was treated with antibiotics.

On examination she looked extremely pale and was breathless on exertion. The left side of her brassiere was full of clotted blood. The right breast was normal, but on the left side the nipple was excoriated and was oozing bright blood from several areas. No discrete masses were palpable in either breast, but there was some thickening of the upper outer quadrant on the left side. Both axillae were clear. The patient was admitted to hospital, where the haemoglobin level was found to be 8-8 g/100 ml and an ESR was 62 mm/hr. Mammography was not carried out as the breast was too tender. She was observed on the ward and the bleeding continued.