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Letters to the Editor

Hepatic and pulmonary complications of herbal medicines

Sir,

It is not commonly recognized, but some herbal medicines are potentially lethal. Comfrey (*Symphytum officinale*), skullcap (*Scutelleria galericulata*) and valerian (*Valeriana officinalis*) can produce hepatitis.[1] Pyrrolizidine alkaloids in comfrey cause pulmonary endothelial hyperplasia in rats[2] but so far no pulmonary involvement has been reported in humans. We report a patient who took herbal remedies containing comfrey and skullcap for 6 months and developed serious liver and pulmonary disease.

A 77 year old woman presented with tiredness, anorexia and weight loss for 6 months, cough with green sputum for 3 months and dark urine but normal stools for a few weeks. She consumed approximately 6 units of alcohol per week. On examination she was moderately jaundiced but apyrexial. She had no hepatosplenomegaly or ascites. Her chest was clear on auscultation.

Initial investigations were: bilirubin 59 μmol/l (normal <17), alkaline phosphatase 390 IU/l (normal <300) and aspartate transaminase 520 IU/l (normal <50). Her serum total protein was 67 g/l and albumin was 31 g/l. Serology was negative for hepatitis A, B and C viruses. The cytomegalovirus titre was 1 in 20. The chest X-ray showed reticulonodular shadowing in the right mid-zone and at the right base. An ultrasound and a computed tomography scan of her abdomen showed no hepatosplenomegaly and no evidence of biliary dilatation or stones.

Repeat liver function tests 1 month later were unchanged and the patient was admitted for liver biopsy. It was only at this stage that the patient, despite repeated questioning about medications, admitted taking three types of herbal remedies for the previous 6 months: BFC for 'wasting diseases', Bowel Tonic for 'peristalsis' and Nervine for anxiety. Each was taken as ½ a level teaspoon, three times daily, for 6 days out of seven. Apparently her daughter had been taking these for her multiple sclerosis and had persuaded her mother to take them. She stopped them on admission to hospital. She was extremely reticent about the biopsy which was then deferred. Two weeks later her liver function tests had improved dramatically. The bilirubin was now 25 μmol/l, alkaline phosphatase 330 IU/l, aspartate transaminase 73 IU/l. Over the next 6 months her symptoms gradually improved and she began to gain weight. The liver function tests and chest X-ray took 4 months to return to normal.

We think the hepatitis and lung changes were due to the herbal medicines because of the close temporal association and the absence of other agents.

Along with seven other herbs, comfrey root and skullcap were both present in the BFC, comfrey 6 parts in 27 and skullcap 1 part in 27. Both comfrey and skullcap may produce an acute hepatitis[1] but only comfrey is known to produce pulmonary lesions, and then only in rats.[2] This suggests that the pulmonary lesions were evidence of endothelial hyperplasia and due to comfrey.

This case demonstrates again that some herbal medicines can be dangerous and it is also the first report where pulmonary lesions have been reported in humans.

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Addisonian crisis presenting with a normal short tetracosactrin stimulation test

Sir,

In view of the deeply flawed methodology of the conventional short tetracosactrin (Synacthen) test, it comes as no surprise that some patients with primary hypoadrenalism should show normal cortisol responses as reported by Butcher *et al.*,[1] and also by other authors.[2-4] Because the short Synacthen test relies on supraphysiological doses of ACTH in order to elicit a given cortisol response, it follows that early cases of primary hypoadrenalism will be missed, because massive stimulation may well elicit a 'normal' cortisol response. This was probably the case when the patient reported by Butcher *et al.* first presented. Dynamic testing with physiological doses of ACTH (approximately 4% of the conventional 250 μg dose),[5] might have been a practical alternative to the measurement of basal ACTH. The relative insensitivity of the conventional short Synacthen test is also evident in the diagnosis of central hypoadrenalism, with discordant results favouring the insulin tolerance test.[6,7] In a few instances of central hypoadrenalism, even the insulin tolerance test has been superseded, in sensitivity, by the 24 hour urinary free cortisol level.[8]

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