Three cases of fatal triazolam poisoning

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Triazolam, which is widely prescribed as a hypnotic, is considered to be safe even in overdose. In elderly patients, however, overdose may be fatal, particularly in patients taking concomitant drug treatment or with serious disease.

Case reports

Case 1—A 76 year old woman with bone pain from osteomalacia due to renal tubular acidosis had been treated with alfalcidol, calcium supplements, sodium bicarbonate, and dihydrocodeine; she was receiving triazolam 0.25 mg as a hypnotic. She was found dead with a note indicating her intention to take her life. Her bottle of triazolam tablets was empty, but she had not taken an overdose of the other drugs. Necropsy showed early pneumonia and chronic bowel obstruction; these lesions were considered to be capable of having caused her death. In view of the suicide note samples were referred for toxicological analysis. This showed a blood triazolam concentration of 47 nmol/l, which is substantially above mean peak therapeutic concentrations.^{1,3} The equivalent of at least five tablets was found in the stomach. Dihydrocodeine was found in therapeutic concentration; analysis for other drugs yielded negative results.

Case 2—A 59 year old depressed woman had spoken frequently of suicide. A year before her death she had been prescribed triazolam several times; three days before her death she showed someone a hoard of tablets and spoke of taking her life. She was found dead with a partly consumed bottle of whisky. Necropsy did not show any anatomical lesions that might have accounted for her death. Toxicological analysis showed a blood triazolam concentration of 58 nmol/l and temazepam concentration of 3 µmol/l (the upper end of the therapeutic range).⁴ Small quantities of both drugs were found in her stomach. Her blood alcohol concentration was 45 mmol/l and urine alcohol concentration 18 mmol. Tests for other drugs yielded negative results.

Case 3—A 75 year old woman with schizophrenia and depression had been admitted to hospital several times after drug overdoses and had tried to slash her wrists. She was being treated by depot haloperidol injections monthly and was taking orphenadrine 50 mg

twice daily and triazolam 0.5 mg at night. She was found dead with two empty bottles of triazolam tablets beside her. Three days before her death she had acquired two prescriptions, each for 60 tablets of 0.25 mg triazolam. Necropsy showed severe degenerative narrowing of coronary arteries and other changes due to aging. Her blood triazolam concentration was 76 mmol/l, and the orphenadrine concentration was within the therapeutic range. Tests for other drugs yielded negative results.

Comment

Two of these patients had natural diseases that might have been responsible for their deaths; the third patient had taken a fairly high dose of temazepam and a considerable volume of alcohol. The circumstances of the deaths nevertheless indicated the possibility of self poisoning, making toxicological examination mandatory. The analyses indicated substantial overdose with triazolam in all three cases, and we concluded that triazolam poisoning was probably the main cause of death in these debilitated patients.

In a recent search of published reports we failed to find any case in which death was attributed principally to triazolam poisoning, implying that the drug is fairly safe when taken in excess; this may be true in young healthy people. The drug is difficult to measure in small amounts, and this may have led to triazolam poisoning being missed in patients with serious diseases or other intoxications. The techniques of measurement used in our cases will be described elsewhere.

The hazards of overdose led to barbiturates being replaced as hypnotics by drugs such as triazolam. Our recent experience indicates that patients who have taken triazolam should be monitored closely as this drug may not be as safe as is commonly supposed when taken in overdose by debilitated elderly patients.

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Adverse consequences arising from misdiagnosis of food allergy

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Food allergy is rare,¹ but there is widespread belief that sensitivity to specific foods is a common cause of a variety of symptoms.² This belief is supported by publications in the popular press and by enthusiastic "alternative" practitioners, who may be medically qualified.

We report on four cases seen recently in this area in which the diagnosis of food allergy and treatment by a practitioner of alternative medicine delayed the diagnosis and treatment of serious organic disease.

Case reports

Case 1—A 43 year old man presented with symptomatic anaemia to a practitioner of alternative medicine, who diagnosed allergy to gluten, milk, and caffeine. Symptoms continued despite changes in the diet, and six months later he was referred by his general practitioner. On examination he was found to be anaemic, but there were no other specific findings. Investigation showed haemoglobin 74 g/l and faecal occult blood; gastroscopy and duodenal biopsy yielded normal results; and colonoscopy showed an annular carcinoma of midtransverse colon. A laparotomy was performed. There were hepatic metastases and the patient died 12 months after resection of the primary tumour.

Case 2—A 23 year old woman presented with a six month history of abdominal pain, weight loss, and diarrhoea with intermittent blood and mucus. Milk