Comment

Assessment of gastric parietal cell antibody activity in 19 patients with hyperthyroid Graves's disease, through a course of treatment with carbimazole, failed to show any significant alteration in antibody activity in response to the drug. In contrast, thyroxine-stimulating hormone receptor antibody concentrations decreased when carbimazole treatment was started.

Carbimazole has previously been shown to reduce antithyroid antibody concentrations in patients with Graves's disease and this effect, occurring independently of any changes in thyroid hormone concentrations induced by the drug, is due to a direct influence on the cells of the immune system.[2] Whether or not the influence of carbimazole on the immune system is a general effect or a specific antithyroid effect is uncertain. Indirect evidence has suggested that the concentrations of antithyroid drug necessary to inhibit autoantibody production in vitro are unlikely to be achieved outside the thyroid.[3] In comparing the changes in thyroidal and non-thyroidal autoantibodies in patients with Graves's disease, the present study indicates that the immunosuppressive effect of carbimazole is a specific one localised to the immune cell population of the thyroid.

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Walking sticks used by the elderly

The ideal walking stick should be of the correct length and have a ferrule with a good gripping surface and a comfortable handle.[1] Many, however, are unsuitable, and some are dangerous. We therefore determined how often walking sticks used by the elderly are faulty.

Method and results

We assessed 60 sequential patients (mean age 77·5 years) referred to us who were using 62 walking sticks and determined why they were using a stick, where they had obtained it, and whether a therapist had measured them for it. We asked if the patient had fallen while using it. The stick length was measured, the type of handle noted, and the ferrule inspected.

The primary conditions prompting the use of a stick were osteoarthritis and stroke. Thirty-five sticks had been obtained from relatives or friends or had been bought from shops. Sixteen had been provided by hospitals: in 12 cases the patient had been measured for the stick. Eleven sticks had been provided by the local authority social services; in only two cases had the patient been measured.

Only 15 sticks were of the correct length (table) as judged by the distance from the distal crease of the wrist to the ground. Twenty-five of the non-assessed sticks exceeded the ideal length by 5 cm or more; 14 of these were at least 10 cm too long; of the five assessed sticks that were too long, none was more than 5 cm longer than the recommended length.

Twenty-six sticks had dangerous features: 23 had badly worn or loose ferrules, two were excessively flexible, and one had a splintered shaft. Only three had handles with materials added to increase their diameter in order to accommodate painful or arthritic hands.

Lengths of walking sticks in study

	Patient assessed	Patient not assessed
Correct length	9	6 ($\chi^2 = 14{\cdot}10$; df = 1)
Too long	5	37 ($p < 0{\cdot}001$)
Too short	1	4
Total	15	45*

*Two patients used two walking sticks each.

Comment

Many walking sticks used by old people have faults that can be easily remedied. Most are too long. Two methods are recommended for determining the correct length of a walking stick: (1) measurement from the wrist crease or ulnostyloid joint to the ground, the patient standing erect in shoes with the arm hanging loosely at the side[2 3]; and (2) the distance from the greater trochanter to the ground.[2 4] We found that in 20 patients the trochanter-ground distance exceeded the wrist crease-ground measurement by more than 4 cm, and we suggest that in assessing the elderly for sticks only the wrist-ground measurement is used.

There appear to be no data to confirm why these two measurements are recommended; presumably they encourage the patient to stand vertically. Of the 24 patients who had fallen while using their sticks, 18 had sticks of the incorrect length. This suggests that sticks that are not of the conventionally accepted length may be dangerous.

In patients who had not been assessed by therapists considerable wear of the tread on the ferrule was common. Few sticks had modified handles: elderly or arthritic patients are more comfortable when the handle is enlarged with additional materials. Further work is needed to establish whether modifications to the handle are indeed effective in reducing hand discomfort.

The walking stick is a simple and useful aid. Those who provide sticks should ensure that they are safe. By paying more attention to walking sticks we might enable our elderly patients to walk with less discomfort and more safety.

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Dark Warrior epilepsy

The world-wide explosion of video games and the attendant problems[1] have been unnoticed by the medical profession, except by doctors who are addicted to these games and deny that such a problem exists. Single cases of Space Invader wrist tendonitis[2] and Space Invader epilepsy[3] have, however, recently been reported. We describe a case of highly selective "Space Invader epilepsy."

Case report

A 17-year-old girl played video games for about two hours every day. She had done so for at least two years without financial ruin because her father was a video games maintenance engineer and she played them free in his workshop. She had played Space Invader, Asteroids, and Lunar Rescue and not suffered any known adverse effects. On 30 October 1981 she played Dark Warrior for the first time. The first game was without incident. During the second game there was a bright multicoloured flashing sequence and she

suddenly lost consciousness. She fell to the ground after becoming rigid. There was some shaking of the limbs, and she was unresponsive to commands for about five minutes. Her father at first thought that she had been electrocuted, and she was rushed to the local hospital. She was examined by her doctor and by then was responsive to commands but appeared confused. Subsequent examination of the Dark Warrior game showed it to be normal, there being no faulty circuitry to suggest that electric shock had occurred. Epilepsy was diagnosed and she was referred for neurological opinion.

After the fit she played other video games daily but specifically avoided the Dark Warrior and had no further attacks. There was no relevant medical or family history. Physical examination, including that of the wrists, was normal. Haematological and biochemical profiles were within the normal range. A specific diagnosis of Dark Warrior epilepsy was based largely on the history. An electroencephalogram showed a pattern considered to be typical of photoconvulsive epilepsy, and she was most sensitive to light flashing at frequencies between 15 and 21 Hz. She was advised to avoid bright flashing lights and, of course, Dark Warrior, though it seemed unreasonable to recommend avoidance of other video games. She took no anticonvulsants or other drugs, and remained free of further fits.

Comment

The seminal case report by Rushton[3] established Space Invader epilepsy as a nosological entity. In that case a 17-year-old male of Rumanian origin, with a history of a single febrile convulsion in childhood, had a grand mal seizure and symptoms suggestive of temporal lobe epilepsy when playing the Astro Fighter video game. Our case records a clearly unique and highly selective type of so-called Space Invader epilepsy; the patient was female, the fit occurred only with the Dark Warrior game, and she did not experience symptoms of temporal lobe epilepsy.

The term Space Invader epilepsy is, in fact, a misnomer, since no cases have been reported with the Space Invader video game itself. We suggest, therefore, that Astro Fighter and Dark Warrior epilepsy be classified under "electronic space war video game epilepsy" and this as a special category of photoconvulsive epilepsy. Video games other than space war games—for example, Super Bug and Munch Man—appear to be less epileptogenic. Electronic space war video game epilepsy has yet to be reported with Defender, Space Fury, Lunar Rescue, or Asteroids war games. We subsequently encountered a case in an 18-year-old recovering from a subdural empyaema. Further cases and possibly a series may therefore be reported in the future.

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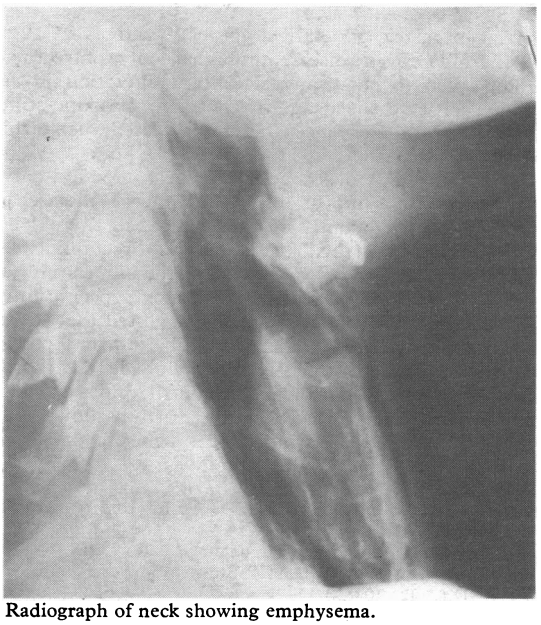
Accidental oropharyngeal injury

Traumatic lesions of the mouth and oropharynx are frequent but usually trivial. They include mucosal abrasions from ill-fitting dentures, sharp teeth, or cheek biting and penetrating injuries from impacted fish bones or the stiff bristles of a toothbrush.[1] We describe a severe and potentially lethal injury that followed removal of a metal bottle top with the teeth.

Case report

A 15-year-old girl was admitted as an emergency with intermittent inspiratory stridor and severe bleeding from the mouth after sustaining an injury while removing with her teeth a metal screw top from a two-pint plastic orange juice container. It was not apparent from the history whether the bottle top was lodged in the larynx, had been swallowed, or had been expelled from the mouth.

On examination she was pale, distressed, and bleeding heavily from the mouth. She had mild tachycardia (88 beats/min) but normal blood pressure (110/60 mm Hg). No foreign body was evident on immediate indirect laryngoscopy, though visibility was limited owing to large quantities of fresh and clotted blood in the mouth. Palpation of the neck showed gross surgical emphysema extending over the chest wall posteriorly. A plain lateral *x*-ray film of the neck (figure) confirmed the emphysema, which was also seen in the mediastinum on a chest *x*-ray film. No foreign body was evident on either film.



Radiograph of neck showing emphysema.

After immediate resuscitation she underwent nasotracheal intubation and suction clearance of the upper air and food passages. Panendoscopy failed to show the bottle top (later recovered at the scene of the accident) but disclosed avulsion of the left tonsil, which was surrounded by a thin mucosal fringe and attached solely by its inferior pedicle. The internal carotid artery was clearly visible in the base of the wound but was intact. On the right side there was a similar but less severe injury, the tonsil having been avulsed at only its upper pole, and there were also minor lacerations to the dorsum of the anterior two-thirds of the tongue and the pharyngeal surface of the soft palate.

A Boyle-Davis gag was inserted and repair effected using interrupted 3/0 chromic catgut, cover for the carotid artery being provided by tonsillar tissue. At the end of the procedure a wide-bore (16 French gauge) nasogastric tube was inserted and a five-day course of antibiotics (ampicillin 500 mg intravenously six-hourly and metronidazole by suppository) started. In the first 24 hours after operation the haemoglobin concentration fell from 14·8 to 12·7 g/dl, but transfusion of blood was not considered to be necessary. She made an uneventful recovery.

Comment

The potential dangers of the explosive release of corks from carbonated alcoholic drinks has been recognised,[2 3] but to our knowledge no report has described injuries of the mouth and oropharynx by such a mechanism. The severe nature of the injuries in this case resulted from the ill-advised opening of a bottle containing uncarbonated orange juice, which two months previously had been decanted from a larger one gallon plastic container and the bottle resealed and stored without refrigeration. As evidenced by subsequent examination, the explosive nature of the contents was due to fermentation, and we suggest that manufacturers warn consumers of the dangers that may follow prolonged storage in similar conditions.

We thank Mr J B Booth, consultant surgeon, for allowing us to report this patient.

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