Correspondence

An unusual cause of abnormal gait

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Sir

Peripheral nerve injuries from intramuscular injections are recognized complications when administering drugs in a healthcare setting.

I report two cases of possible peripheral nerve damage in people illicitly injecting anabolic steroids into the gluteal region for improvement in muscular strength and size.

This report concerns two men who attended the same needle exchange scheme to obtain clean needles and syringes for their anabolic steroid misuse. Both patients suffered lower limb, hamstring weakness using the hip flexor as a compensatory mechanism for movement. There also appeared to be ill-defined anaesthesia and paraesthesia below the knee in both individuals. Each individual described bizarre injecting techniques. One client divided the buttocks into quadrants and injected into each quadrant, then into the centre of the intersecting lines in turn.

The second patient's history of injection technique was more frequently towards the centre of the buttock. Both these cases were seen to suffer similar symptoms of possible sciatic or peripheral nerve trauma. When it was suggested they seek medical help neither patient was ever seen again.

Anabolic steroids misuse is now getting more publicity. Estimates on the prevalence of steroid use are found in the literature. A recent study by the author has shown that in some gymnasia in South Wales the prevalence is over 35%¹. Korkia and Stimson² found that the prevalence of anabolic steroid use in the gyms studied ranged from no reports to 46% of respondents and that 9% of men and 2% of women from their study cohort reported having used anabolic steroids at some time.

Our needle exchange schemes are progressive in that they acknowledge the need to provide a service to clients taking anabolic steroids as well as those taking illicit drugs and in that drug users are taught safer injecting techniques for intravenous (i.v.) administration, we also offer advice on intramuscular (i.m.) injecting. With the prevalence of anabolic steroid misuse, we feel sure that more complications of administration will be seen in the future.

One problem with this group of individuals is that they refuse to acknowledge themselves as drug misusers and consequently are slow in seeking specialist advice. Also, on occasions, their pharmaco-

logical and technical knowledge of injecting is far less than that of i.v. drug abusers.

Healthcare professionals involved with these misusers should bear the above cases in mind when they come into contact with people using anabolic steroids. They should offer advice on injecting techniques just as they do for i.v. abusers, if as my experience indicates, abstinence, although a long-term ideal, is not agreeable to these individuals in the short term.

References

- 1 Perry HM, Wright D, Littlepage BNC. Dying to be big: a review of anabolic steroids. *Br J Sports Med* 1992; 26: 259-61.
- 2 Korkia P, Stimson GV. *Anabolic Steroid Use in Great Britain*. The Centre for Research on Drugs and Health Behaviour, London, UK, 1993.

Electrolyte manipulation in female body-builders

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Sir

The 'making of weight' by drastic restriction of food and fluid intake, administration of diuretics and purgatives, blood donation, deliberate vomiting, the wearing of impermeable suits and prolonged sauna bathing, is a well-recognized abuse in combat sports and other weight-classified athletic contests¹⁻⁴. However, it is less widely recognized that entrants in top body-building competitions now also engage in dangerous manipulations of body fluids and electrolytes.

One 'coach' of body builders in Western Canada now recommends stringent dietary and pharmacological manipulation for 7 to 10 days before major international competitions. The stated objectives of the regimen are to make the skin 'paper thin', and the muscles smooth and prominent by intracellular fluid accumulation carried to the threshold of water intoxication on the day of the contest.

The 'coach' is presently advocating 'medically supervised' (!) administration of the aldosterone antagonist spironolactone (aldactone) in doses increasing from 50 to 100g (*sic!*) per day in order to increase intracellular water. If spironolactone cannot be obtained, he suggests that the electrolyte regulating systems of the body can be 'tricked' into accepting a high intracellular potassium by a period of 2-3 days of high salt intake, avoiding all food with an appreciable potassium content; this is followed by a similar 3-4 day period when all salt is eliminated from the diet, high sodium foods are avoided, and foods high in potassium are exclusively selected. The 'coach' thoughtfully warns that a combination of the