EDITORIAL

Drug abuse and the accident and emergency department

An awareness that the misuse of drugs is an increasing problem and that society is at last becoming concerned about this has led the Department of Health and Social Security to publish *Guidelines of Good Clinical Practice in the Treatment of Drug Misuse* (DHSS, 1984). Accident and emergency departments get a special section which is aimed mainly at recognizing and referring the intravenous opiate addict. It is pointed out that departments are often not aware that it is an offence if a doctor does not notify the chief medical officer of anyone considered to be addicted to a controlled drug. Within 7 days of attending such a patient, the law requires that a doctor supplies the chief medical officer with the patient's name, address, sex, date of birth and National Health Service number if known. The date of attendance and drugs involved should also be supplied. A distinction between addiction, abuse and experimentation is not made and this may account for under-reporting of cases in the past. The purpose of collecting these data is to permit the carrying out of an adequate assessment of the size of the problem. Once armed with this knowledge the department can and must allocate resources appropriately. The addicts' register is confidential and not available to the police.

When considering the possibility of opiate abuse, newer techniques of absorption have to be considered. Venepuncture marks are well recognized even if often well hidden in the groin or beneath the tongue. However, inhalation is increasingly used as a method of administration, particularly with heroin. At the moment the drug is cheap and freely available and so it is no longer considered wasteful to heat the drug and inhale the fumes. This is easier to accomplish for the very young and inexperienced and 'chasing the dragon' is now a widespread practice. Although patients may not suffer many of the sequelae of intravenous abuse they still become addicted. Furthermore, in times of short supply they may deteriorate to venepuncture. It is not just heroin that is being inhaled by the young. Solvent abuse ('glue sniffing') is now widely practised and the substances abused range from adhesives to paint thinners and lighter fuel. The central nervous system (CNS) is depressed and as with alcohol this release of cerebral cortical control is experienced as exhilaration. Further CNS depression can lead to coma. Hypoxia and hypercapnia can occur if inhalation is from a bag over the mouth and nose and fatal cardiac dysrhythmias have been reported (Bass, 1970; Anderson *et al.*, 1982). Solvent abusers may present to the accident and emergency department in coma or after being found confused and disoriented. Unexplained neurological symptoms in children should always suggest the possibility of solvent abuse. Long-term abuse may lead to bone marrow suppression, thrombocytopenia and aplastic anaemia (Powars, 1965). More commonly a rash appears around the nose and mouth due to direct irritation but purpura may appear if thrombocytopenia ensues. Permanent brain damage occasionally occurs (King *et al.*, 1981) and hepato-renal failure has been reported (O'Brien *et al.*,

1971). If the problem is recognized early then the outlook is good. A high index of suspicion is essential and referral to a psychiatrist recommended. Specific treatment may not be indicated but caring agencies can be alerted and the problem hopefully contained (Sourindhrin & Baird, 1984).

Hepatitis B vaccine

The staff of accident and emergency departments are often considered to be at special risk of infection with hepatitis B virus. Passive immunization with immunoglobulin is available to staff after inoculation with a contaminated needle but what of primary vaccination prior to the event? Mulley *et al.* (1982) consider that vaccination without prior screening of surgical residents in the USA would be cost-effective and Adler *et al.* (1983) estimate that vaccination of another known 'at-risk' group—male homosexuals—would also prove very cost-effective. There is a growing lobby which suggests that vaccination should be extended to include all 'at-risk' groups (Zuckerman, 1984). Dienstag *et al.* (1984) have studied such use of the vaccine among a wide variety of hospital workers and their results, although on relatively small numbers, suggest it might prove to be effective. However, Stevens *et al.* (1984) have reported no benefit with the same vaccine when given to patients receiving haemodialysis.

The vaccine is prepared from the serum of chronic hepatitis B carriers and so the possibility that the AIDS virus (HTLV-111) may be transmitted in this way has been raised. Fortunately, early fears have so far been proved unfounded and no case of AIDS can be attributed to this cause. Furthermore, a vaccine has been developed using recombinant DNA, which obviates the need for serum and should therefore be without risk of infection (Jilg *et al.*, 1984). It has proved to be not so effective as the serum derived vaccine but efficacy may be improved with increase in dosage and the evidence prove more convincing when the numbers in the trials are bigger.

Syrup of Ipecac

Syrup of Ipecac is a mixture of plant alkaloids used in the UK to induce vomiting in children who have taken poisons. Gastric lavage is thought to be too unpleasant and possibly dangerous in these circumstances although it is frequently administered to adults. Is there a case for the use of Ipecac in adults? In the USA it is widely used in adults (Moran *et al.*, 1984) and has also been similarly recommended in Australia (Lett *et al.*, 1977). It works by irritating the gastric mucosa but is also absorbed in varying degrees (Moran *et al.*, 1984) to produce a central effect as well (Weaver & Griffith, 1969). It clearly cannot be used in unresponsive patients or those who are uncooperative. The ingestion of corrosives, oils or petrols are also contra-indications to its use. However, we in the UK could probably use it more than we do and some of us have already started. The staff of Scarborough Hospital, UK use 20 ml of Ipecac mixed with orange juice and repeat this after 20 minutes if there is no response (Karim, 1984). They are enthusiastic about its use and I would be very interested to hear of similar experiences or adverse opinions.

REFERENCES

- Adler M. W., Belsey E. M., McCutchan J. A. & Mindel A. (1983) Should homosexuals be vaccinated against hepatitis B virus? Cost and benefit assessment. *British Medical Journal* **286**, 1621–4.
- Anderson H. R., Dick B., Macnair R. S., Palmer J. C. & Ramsay J. D. (1982) An investigation of 140 deaths associated with volatile substance abuse in the United Kingdom (1971–1981). *Human Toxicology* **1**, 207–21.
- Bass M. (1970) Sudden sniffing death. *Journal of the American Medical Association* **212**, 2075–9.
- Department of Health and Social Security (1984) *Guidelines of Good Clinical Practice in the Treatment of Drug Misuse*. London, DHSS.
- Dienstag J. L., Werner B. G., Polk B. F., Snyderman D. R., Cravan D. E., Platt R., Crumpacker C. S., Ovellett-Hellstrom R. & Grady G. F. (1984) Hepatitis B vaccine in health care personnel: safety, immunogenicity and indicators of efficacy. *Annals of Internal Medicine* **101**, 34–40.
- Jilg W., Lovbeer B., Schmidt M., Wilske B., Zoulek G. & Deinhardt F. (1984) Clinical evaluation of a recombinant hepatitis B vaccine. *Lancet* **ii**, 1174–5.
- Karim S. M. (1984) Personal communication with the editor.
- King M. D., Day R. E., Oliver J. S., Lush M. & Watson J. M. (1981) Solvent encephalopathy. *British Medical Journal* **283**, 663–5.
- Lett I. K. P., Gibb S. M. & Unsworth R. (1977) Syrup of ipecacuanha as an emetic in adults. *Medical Journal of Australia* **2**, 91–3.
- Moran D. M., Crouch D. J. & Finkle B. S. (1984) Absorption of Ipecac alkaloids in emergency patients. *Annals of Emergency Medicine* **13**, 1100–2.
- Mulley A. G., Silverstein M. D. & Dienstag J. L. (1982) Indications for use of hepatitis B vaccine, based on cost effectiveness analysis. *New England Journal of Medicine* **307**, 644–52.
- O'Brien E. T., Yeoman W. B. & Horby J. A. E. (1971) Hepatorenal damage from toluene in a glue sniffer. *British Medical Journal* **ii**, 29–30.
- Powars D. (1965) Aplastic anaemia secondary to glue sniffing. *New England Journal of Medicine* **273**, 700–2.
- Sourindhrin I. & Baird J. A. (1984) Management of solvent abuse: a Glasgow community approach. *British Journal of Addiction* **79**, 227–32.
- Stevens C. E., Alter H. J. & Taylor P. E. (1984) Hepatitis B vaccine in patients receiving haemodialysis: immunogenicity and efficacy. *New England Journal of Medicine* **311**, 496–501.
- Weaver J. E. & Griffith J. F. (1969) Induction of emesis by detergent ingredients and formulations. *Toxicology and Applied Pharmacology* **14**, 214–20.
- Zuckerman A. J. (1984) Who should be immunised against hepatitis B? *British Medical Journal* **289**, 1243–4.

A. D. REDMOND
Editor