

## ANY QUESTIONS?

We publish below a selection of questions and answers of general interest.

## Addiction to Dihydrocodeine

**Q.**—Is there any danger of addiction to dihydrocodeine bitartrate when used in long-term therapy?

**A.**—Dihydrocodeine was first used as a cough suppressant in Germany about 50 years ago, but its value as an analgesic has been appreciated only more recently.<sup>1</sup> It is one of a group of synthetic morphine-like drugs which have been claimed to have greater potency and less toxicity than codeine.<sup>2</sup>

Seed *et al.*<sup>3</sup> state that dihydrocodeine is addictive but is nearer to codeine than morphine in this respect. The World Health Organization Expert Committee on Addiction-producing Drugs<sup>4</sup> list dihydrocodeine as potentially addictive, and most authors agree with that.<sup>5,6</sup> Despite this, there are surprisingly few cases of addiction reported. Eddy *et al.*<sup>1</sup> found only one case of primary addiction to dihydrocodeine. On the other hand, a considerable number of cases of addiction to the closely related drug dihydrocodeinone have been reported.<sup>7</sup>

It seems unlikely that any potent analgesic will be entirely free from addictive qualities, and that the addictive liability will roughly parallel the analgesic potency.<sup>1</sup> Since dihydrocodeine is more potent than codeine and rather less potent than morphine, it is reasonable to regard it as being potentially addictive. It is worth noting that even codeine has come under suspicion in this context.<sup>8</sup> It is obviously inadvisable to use any addictive drug in a chronic condition if any reasonably satisfactory substitute (such as salicylate or paracetamol) proves effective.

## REFERENCES

- 1 Eddy, N. B., Halbach, H., Braenden, O. J., *Bull. Wld Hlth Org.*, 1957, **17**, 569.
- 2 Beckman, H., *Pharmacology*, 1961, 2nd ed. W. B. Saunders Company, Philadelphia and London.
- 3 Seed, J. C., Wallenstein, S. L., Houde, R. W., and Bellville, J. W., *Arch. int. Pharmacodyn.*, 1958, **116**, 293.
- 4 W.H.O. Expert Committee on Addiction-producing Drugs, *Wld Hlth Org. techn. Rep. Ser.*, 1964, No. 273.
- 5 Macdonald, A. D., *J. Pharm. Pharmacol.*, 1962, **14**, Suppl. 9T.
- 6 *To-day's Drugs*, 1964. British Medical Association, London.
- 7 Rosenwald, R. J., and Russell, D. H., *New Engl. J. Med.*, 1961, **264**, 927.

## A.C.T.H. in Asthma

**Q.**—Is it safe to continue indefinitely with courses of A.C.T.H. at regular intervals in a case of severe asthma which is not otherwise controllable, and in which corticosteroids are not tolerated? Is there a danger that pituitary function may be depressed? Would it be better to give A.C.T.H. in a smaller daily maintenance dose rather than in repetitive courses of larger doses at regular intervals?

**A.**—It is not quite clear what is meant by "regular intervals," nor is it stated how long the courses would last. Short courses of A.C.T.H. lasting four to seven days, repeated at intervals of three to four weeks, are justifiable if the patient has severe attacks

of asthma. In such cases the risk of pituitary suppression for more than a few days is small, especially if the injections are tailed off by giving the last few injections on alternate days. Full recovery of pituitary function will probably have taken place in the interval before the next course.

If the courses are required more often, subcutaneous injection of 20 to 40 units of A.C.T.H. gel daily or on alternate days would probably be more satisfactory. Some Cushingoid features would almost certainly develop in such cases, and regular examinations for glycosuria, osteoporosis, hypertension, etc., should be done. Emotional disturbances such as depression might also occur, and silent infections, including pulmonary tuberculosis, might develop. Until synthetic preparations of A.C.T.H. become available, a risk, though small, of sensitization and anaphylaxis would exist. Treatment might well have to be continued for life, and would entail a heavy responsibility for supervision for the doctor.

It is clear that only cases whose life or livelihood is threatened as the result of repeated severe attacks of asthma should be treated in this way. Before deciding on such a course a full investigation to determine possible precipitating factors should be carried out.

## Poliomyelitis in India

**Q.**—Is it important that an infant who is about to visit India when aged 6 months should be immunized against poliomyelitis, even if the visit will be for only a few weeks?

**A.**—It is advised that an infant aged 6 months should be immunized against poliomyelitis before going to India. The earlier that this can be carried out before arrival in India the better, but even when the period available is short vaccine may still be given.

It is suggested that a first dose of oral polyvalent vaccine be given immediately, followed if there is little time by a second dose in a fortnight. The third dose could be taken to India and given after, say, a further month. If there is more notice of the departure the course can be completed in a more leisurely fashion. There is no evidence of the phenomenon of interference between smallpox and poliomyelitis viruses.

## Hypnosis in Migraine

**Q.**—Is hypnosis of value in the treatment of cases of migraine of long standing?

**A.**—The value of hypnosis in treatment depends in large measure on the depth of trance, and is therefore maximal when the patient is one of the 5% described as deep-trance subjects who can be hypnotized into an amnesic trance and psychologically regressed to childhood states. If the patient with migraine is a deep-trance subject hypnosis can effectively be used both during attacks and prophylactically. During an attack it may be possible to relieve the headache and other symptoms by direct suggestion under

hypnosis, although experience shows that this is of most value before the attack starts or at the very beginning. In prophylaxis hypnosis is of particular value—so long as the patient is a deep-trance subject. Given this condition, auto-hypnosis can be employed and the patient instructed to ward off attacks in this way. Reinforcement of this instruction should be given regularly in the course of the supportive therapy, and an attempt to relieve the tensions precipitating the attacks should also be made. In this latter respect, however, psychotherapy not under hypnosis is probably more effective in the end.

## Notes and Comments

**External Cardiac Massage.**—Dr. B. S. BAKER (Area Medical Officer, National Coal Board, Bestwood, Nottingham) writes: I was interested to read the answer to this question ("Any Questions?" 5 February, p. 343). The technique described is very different from that given in the official manual<sup>1</sup> used by first-aid organizations. The latter teach that as respiration normally ceases before cardiac arrest 6 to 8 insufflations should be given, using the mouth-to-mouth or mouth-to-nose technique, and then external cardiac massage is begun.

The technique described is to place the heel of the hand on the lower third of the patient's sternum, with the fingers pointing at right angles to the sternum and not to the neck, the theory being that if the fingers point to the neck the full width of the hand will depress not only the sternum but also the costal cartilages and ribs, and will therefore expel air from the chest. The manual also recommends that the sternum is moved inwards  $1\frac{1}{2}$  to 2 in. (3.8 to 5.1 cm.) at 60 times per minute, which suggests that the movement mentioned by your expert—that is,  $\frac{1}{2}$  to  $\frac{3}{4}$  in. (1.3 to 1.9 cm.)—would be insufficient. Efficacy is judged by the contraction of the pupils and resumption of skin circulation, as your expert has stated, but a palpable carotid rather than a femoral pulse.

As an active member and lecturer with one of the first-aid organizations, I would be very grateful if this matter could be discussed further in the *B.M.J.* It seems obvious to me that doctors and first-aiders should agree on whichever is the correct technique, and the existing confusion should not continue.

**OUR EXPERT replies:** Respiration does not "normally" cease before cardiac arrest, at least in "coronary patients," and 6 to 8 successive insufflations in such patients would waste valuable time before the start of cardiac massage. Lightning speed of starting this manoeuvre is much more important than the rate (60 to 80 per minute) or the angle of the compressing hand.

The physician who has had experience of this technique in medical wards will tend to "play it by ear." He finds that less compression, force, and amplitude than expected are necessary to maintain animation.

## REFERENCE

- 1 *First Aid: Authorised Manual of the St. John Ambulance Association, the St. Andrew's Ambulance Association, and the British Red Cross Society*, 1965, 2nd edition. The St. John Ambulance Association of the Order of St. John, the St. Andrew's Ambulance Association, and the British Red Cross Society.

## Correction

We regret that Mr. John Shipman's name was misspelt in some copies of last week's issue (26 February, p. 546, last paragraph of a letter from Dr. R. G. Blair and others).