CORRESPONDENCE

ORAL TEMAZEPAM AND I.V. DIAZEPAM

Sir,—The study by Douglas and others (1980) comparing oral temazepam and i.v. diazepam raises some fundamental issues of interpretation. I am concerned that such data may be inappropriately applied to other clinics, or even other procedures, when validation may be absent.

The first major issue must certainly be the external validity of such a study. In typical endoscopy clinics the endoscopy is passed within 2-3 min of giving the diazepam. An average duration of upper gastrointestinal endoscopy is about 5 min, and considerably less than this for follow-up gastroscopies.

Patient and endoscopist “acceptability” were similar in the two groups.

The study by Douglas involved nearly 10 min before commencing the endoscopy, and most procedures apparently took about 30 min to complete. Fortunately, both drugs had a duration sufficient to accommodate these delays.

The study was conducted under double-blind conditions (patient and endoscopist). The 10-min delay following i.v. diazepam may have been helpful, for it is almost certain that, had the operator commenced examination of the patients who received diazepam within 3 min of the injection, there would have been no confusion about the drugs administered.

No data were given concerning the acceptability of the different procedures to the patient. Implicit in the question “would you have this again?” is, of course, the medical indication. This gives no data on which to compare the two drugs, since the patients have no baseline from which to work.

Two people asked if two different boxes are heavy might both reply “yes”, but the observer may not conclude that both boxes are of equal, or even comparable, weight.

This interesting comparison should now be repeated in a normal busy endoscopy clinic on a cross-over basis.

P. A. HARRIS
Welwyn, Herts

REFERENCES


Sir,—It is a pity that Dr Harris does not substantiate his statement that “an average duration of upper gastrointestinal endoscopy is about 5 min”. In studies of 156 patients in a normal busy endoscopy clinic we have found the average duration of endoscopy to be approximately 20 min (Nimmo et al., 1978; Douglas et al., 1980). This is similar to the data of Whorwell, Smith and Foster (1976).

The duration of endoscopy is of limited relevance to our study. Outpatients remain in hospital under supervision for 2 h because of the premedication, not because of the endoscopy.

The sequelae of oral temazepam sedation were of shorter duration than those of i.v. diazepam in our study. Patient and endoscopist “acceptability” were similar in the two groups.

WALTER S. NIMMO
Glasgow

REFERENCES


ANAESTHETIC DRUGS AND MATERNAL-INFANT BONDING

Sir,—Perioperative amnesia produced by benzodiazepines such as diazepam and lorazepam is useful for the patient who has to have repeated unpleasant procedures. It may also provide protection against unpleasant memories in patients in whom anaesthesia is necessarily light, especially in obstetrics. However, amnesia during and after the birth of a baby may adversely affect early interaction between the mother and her newborn baby. During the first hour, when the baby is reactive and alert before falling asleep, as described by Desmond, Rudolph and Phitaksphraiwan (1966), eye-to-eye contact between mother and baby is established. Several studies indicate the importance of this initial contact (Robson, 1967; Klaus et al., 1972; Klaus and Kennell, 1976). Brazelton (1975) mentions one study in which mothers said that if they could not see their baby immediately they were subsequently unsure whether it really was their baby. A more serious problem of drug-induced perioperative amnesia arises when the baby is ill at birth and the mother receives information and explanation which she cannot later recall.

A number of studies has been performed to assess the effects of maternally administered benzodiazepines on the baby. However, even if, as in the careful study of McAllister (1980), drugs are given to the mother at such a time that they do not cross the placenta to reach and affect the baby, it must be remembered that maternal amnesia and sedation will be present during and after the delivery, and may be more intense if the drug is given i.v. If lorazepam is used, these effects will persist for some hours and may be of considerable importance to the future development of the child and the relationship with his or her mother. We wish to encourage anaesthetists and obstetricians to consider this aspect of the effects of drugs they administer to women in childbirth.

M. E. DODSON
M. L. CHISWICK
Manchester

REFERENCES

Sir.—The Editorial by Drs Schorn and Whitwam (1980) states that ketamine as used in anaesthetic practice is “unlikely to cause permanent changes in personality or intellectual function”, yet the authors have failed in their assessment to mention a very serious potential hazard and one which has severely restricted my own use of this drug since studying its side-effects and reporting on 131 cases (Collier, 1972), although I recognize its value in the radiotherapy chamber, emergency fieldwork and a practical teaching programme.

Although the dreams are frequently referred to as unpleasant experiences, the visual content is only rarely unpleasant and in fact usually intensely beautiful. Brightly coloured or luminous patterns, “like floating down a kaleidoscope” are commonly described. The hypnagogic state of sleep induced by ketamine allows some patients to reason that, since they are under anaesthesia, the strange, unexpected intensity and unfamiliar dimension of their experience means they must have died and these are the qualities of the dreaming they find unpleasant and frightening. Some patients spontaneously related the experience to psychedelic drugs and felt concerned that, never having had any desire to take such drugs previously, after anaesthesia with ketamine they might feel tempted to try. Caution and restraint would thus seem to be indicated with children, particularly teenagers. “Fantastic, I flew to the moon in a space ship and it was fireworks all the way” may seem a harmless comment from a boy of 10 years but when discussed with older children the relative potential dangers are obvious.

Although premedication with nitrazepam and droperidol (Johnstone, 1972) effectively controls the disturbing emergence, sensory phenomena, atetoid and myoclonic movements and vomiting that occur with ketamine, the dreaming during anaesthesia is not so well suppressed and still remains a problem (Collier, 1973).

Reports indicate that the frequency of e.g. activity is increased during ketamine anaesthesia, for example 30–40 Hz, particularly in the frontal area (Schwartz, Virden and Scott, 1974), and suggest there can be a prolonged increase in seizure frequency (Bennett et al., 1973), but the patient who, after his one anaesthetic with ketamine (Collier, 1972), experienced side-effects which replicated the combined effects of one dose of marijuana and one dose of LSD taken earlier on separate occasions, provokes the anticipation that certain drugs could trigger patterns of response. It would be interesting to know if any of the patients mentioned in the Editorial who suffered extended psychological problems after ketamine anaesthesia were in fact taking other drugs of similar structural composition or site of action to ketamine.


REFERENCES


SIR,—I am pleased that Dr Collier shares our concern regarding the potential long-term effects of ketamine which prompted the Editorial by Schorn and Whitwam (1980). May I refer Dr Collier to the bibliography attached to the Editorial for information regarding the use of other drugs in the subjects reported?

Dr Collier makes the point that some of the hallucinations associated with ketamine may be so pleasant and desirable as to make some subjects, particularly teenagers, seek further experiences with drugs. However, similar remarks could be made in relation to other drugs used in anaesthesia, for example opiates and barbiturates. Ethics committees will not allow the administration of opiates to normal subjects for experimental purposes and perhaps this should apply to ketamine. Surely the point is that no “psycho-sedative” or narcotic drug should be administered to anyone without a good reason and the appropriate ethical committee should decide who is the appropriate subject.

I have grave doubts as to the desirability of the frequent repeated administration of ketamine as a matter of anaesthetic convenience in any one patient. In this situation one could accept the possibility of permanent effects, and as yet it would appear that neither appropriate clinical observations nor properly controlled studies on animals have been made.

However, Dr Collier indicates, in the opening paragraph of her letter, that in certain clinical situations the advantages of ketamine may be deemed to outweigh its known side-effects. The evidence currently available suggests that, when used on only a limited number of occasions in any one subject, ketamine does not produce permanent changes in the central nervous system. The question of setting a subject at risk on the road to addiction is a much wider problem and may apply to the use of any anaesthetic drug. However, although ketamine may evoke pleasant experiences in some young subjects, I am not aware of any hard evidence that ketamine used in anaesthesia has caused addiction.

J. G. WHITWAM

REFERENCES


LONG-TERM DANGERS OF KETAMINE ANAESTHESIA

Sir,—The Editorial by Drs Schorn and Whitwam (1980) states that ketamine as used in anaesthetic practice is “unlikely to cause permanent changes in personality or intellectual function”, yet the authors have failed in their assessment to mention a very serious potential hazard and one which has severely restricted my own use of this drug since studying its side-effects and reporting on 131 cases (Collier, 1972), although I recognize its value in the radiotherapy chamber, emergency fieldwork and a practical teaching programme.

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