EFFECTS OF OSMOTIC DIURETICS ON C.S.F. PRESSURE

Sir,—Theirs is an elegant report. However, "a fact in our lives is valuable not so far as it is true, but as it is significant" (Goethe) and Walker and Thomson (Brit. J. Anaesth., 43, 445) detract from our understanding of the physiology of shrinking the brain during neurosurgery. They find mannitol superior to fructose-mannitol in the terms of their particular protocol. But I am convinced that the reverse can just as well be said and done by simply changing the rate of administration of the respective solutions.

It is of the greatest clinical importance to realize that the development of "overshoot" (a rise of c.s.f. pressure at the end of the third to fifth hours) depends on the state of hydration of the dogs and nothing else (Hooshmand, Dove and Houff, 1969). Hooshmand et al. found in detailed experiments that if more than one-third of the volume of urine output secondary to the diuretic effects of the drugs was replaced by intravenous fluids, an "overshoot" resulted. On the other hand, if the dogs were kept dehydrated and intravenous fluid was limited to less than one-third of the volume of diuresis, then "overshoot" of pressure did not appear (the one-third figure was arrived at after trials of one-fourth, one-half, two-thirds, and three-fourths replacements of the volume of diuresis).

There are no magic effects of mannitol; anything mannitol can do other osmotic diuretics like glucose and fructose can do better because they are safer (see Particularly Moreno, Murphy and Goldsmith, 1969).

Hamburger (1968), Gibson and Fitch (1971) and Mostert et al. (1971) provide documentation in support of abandoning mannitol therapy in favour of more harmless and useful manoeuvres such as infusion of hypertonic glucose and fructose. The principal merit of this is, however, in safeguarding the knowledge that the brain can be shrunk only at the price of body dehydration.

References


BOOK REVIEW


The practice of obstetric analgesia has changed radically during the past ten years due to the introduction of new drugs and techniques. The CMB syllabus for midwife training in analgesia has been enlarged to take account of these changes. Unfortunately, the number of lectures allotted to teach the enlarged syllabus has not been increased and so those who lecture to midwives on this subject have had to compromise by outlining the principles of analgesia, leaving the midwife to fill in the details from her own reading. This has been difficult due to the lack of an authoritative modern textbook. Dr Moir has filled this gap in the best course to follow. His views on tincture of opium and on the fixed combination of pethidine with levallorphan (Pethilorfan) will be endorsed by most obstetric anaesthetists.

An up-to-date description of inhalation analgesic methods is followed by an excellent account of local anaesthetics and regional analgesia. As might be expected from such a well-known authority in this field, this chapter is the best in the book, being clear, concise and comprehensive.

The book concludes with a chapter on general anaesthesia in obstetrics which could be read with benefit by Fellowship candidates wishing to study a modern account of obstetric anaesthesia.

The book is well produced and would be a worthwhile investment for pupil midwives. It will also be required reading for those anaesthetists who are involved in midwife teaching and would be a useful book for undergraduates and postgraduate students wishing to gain some insight into obstetric analgesia and anaesthesia.

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