CORRESPONDENCE

AN EDIBLE DENTAL PROP

Sir,—The first experience of anaesthesia is, for the majority of children, that accompanying a dental extraction. And if this experience is a terrifying one it will have an adverse effect on their reaction to anaesthesia for the rest of their life. On entering the dental surgery a small child is naturally apprehensive; there are many objects to be seen and he is asked to sit in a chair which is unlike any he has sat in before. The dental surgeon and the anaesthetist do their best to reassure him and to explain what is going to happen. Then to his surprise he is asked to open his mouth and bite on a prop. He is perhaps told to “bite on this piece of tin toffee”. He bites, and on finding that it is not remotely like toffee, he spits it out. Attempts to replace it result in screams, which only too often end in the anaesthetist in desperation forcing the mask on to his face despite his struggles. Anaesthesia is eventually achieved but then a fresh struggle starts to insert a gag between his clenched teeth, often ending in trauma.

All this could have been avoided if the confidence of the child had not been destroyed by the lie about “tin toffee”. It occurred to me that if a prop could be made to look—and taste—like a sweet, and at the same time efficiently hold the jaws apart without slipping, much would be gained. Taking the McKesson rubber prop as a model, attempts were made to reproduce it by pouring melted wine gums into a mould. But this proved too sticky and ordinary lozenge paste was substituted. This has a pleasant taste, does not fragment on pressure and can be produced as a perfect model of the original in any desired colour. A hole is bored through the middle to take a piece of tape to prevent accidental ingestion, as shown in the photograph.

The majority of children readily accept this prop and it is not easily dislodged during induction. The child is told that he will be given his sweet to take home with him after the extraction. After anaesthesia the prop is washed, the tape removed and it is handed to the child in the recovery room. It is remarkable how many crying children become quiet on receiving their “sweet”. It may reasonably be argued by the dental profession that this will appear contradictory to their campaign to stop caries due to excessive sweet consumption. But the sweet might be used as a prize to reward the child for his co-operation with the dental surgeon.

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CHLOROFORM AND HALOTHANE

Sir,—It was refreshing to read the article by Drs. Dobkin, Harland and Fedoruk, “Chloroform and Halothane in a Precision System” (Brit. J. Anaesth., 33, 239). Their experimental work on dogs, the conclusions they draw and their general discussion of the subject are wholly admirable. In view of their remarks on the difficulty of comparing the two agents in a clinical study, the following brief account of an attempt at such a study, however imperfect, may be of interest:

Two years ago, a “Chlorotec” vaporizer was made available to me and I decided to anaesthetize patients in routine day-to-day operating lists, substituting chloroform given from a “Chorotec” inhaler for halothane given from a “Fluotec” inhaler in comparable strengths, but leaving the anaesthetic technique and administration otherwise unchanged. Fifty patients in all were thus anaesthetized; 8 for ear nose and throat surgery,
11 for general surgery, 18 for orthopaedic surgery, and 13 for major dental surgery. Premedication consisted of papaveretum 20 mg with hyoscine 0.4 mg, or morphine 10 mg with atropine 0.6 mg, or atropine 0.6 mg alone; the first combination was used for fit in-patients, the second for the less fit and those over 60 years of age, and the third for out-patients having minor orthopaedic operations. Anaesthesia was induced with thiopentone 100-400 mg as indicated and anaesthesia was maintained with 6 and 2 l./min respectively of nitrous oxide and oxygen, supplemented with chloroform. The amount of chloroform given varied with the needs of the patient; 2 per cent might be given for 1-2 minutes, followed by 1 per cent for 1-2 minutes, then \( \frac{1}{2} \) per cent thereafter. Only occasionally was it found necessary to increase the chloroform vapour strength to 1 per cent for 2-3 minutes during maintenance because of lightening of the level of anaesthesia. Twenty-four patients were intubated; 16 including all the major dental cases, nasally, and 8 orally. Suxamethonium chloride 30-40 mg was given when this was done. Three patients were artificially ventilated and laudexium was used as the relaxant for this purpose. Ventilation was by manual compression of a reservoir bag, using the Magill system which was employed in the whole series, and obtaining the necessary pressure by closing the Magill valve to the required degree. During artificial ventilation \( \frac{1}{2} \) per cent chloroform was used intermittently only for approximately half the total period of ventilation.

Among this series of patients were one aged 80 years and one aged 88 years with evidence of a recent pneumonia, both having operative treatment of a fractured femur; two diabetics; one with a history of coronary thrombosis; and one patient who was anaesthetized twice.

It would be unscientific to draw any firm conclusions from such a small series, but the clinical condition of these patients during and after anaesthesia suggested the following observations, which may be compared with the points made by Dobkin, Harland and Fedoruk in the article referred to above. (1) Chloroform and halothane are roughly equipotent in human beings. (2) Halothane will "settle" patients after a thiopentone induction slightly more quickly than chloroform. (3) Though reflexes, or coughing on extubation, are usually present at the end of operation whether chloroform or halothane is used as described above, complete recovery is a little more rapid after halothane. In a series of orthopaedic out-patients in which the drugs were used alternately, patients left the hospital in the same time, irrespective of which was used. (4) Apnoea was not seen with either drug as used in this technique, unless muscle relaxants had also been given. (5) Six out of 50 patients vomited postoperatively after chloroform; 2 after mastoidectomy and 1 after tonsillectomy. Two others brought up only a small quantity of mucus and the last, a healthy woman of 64, having previously had chloroform with no vomiting, vomited on the second occasion for 48 hours intermittently.

Duration of operations in the series was 15-90 minutes.

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