LUMINOUS RESERVOIR BAG

Sir,—Most surgeons like darkness in the operating theatre while carrying out procedures such as cystoscopy, oesophagoscopy, laparoscopy, retinectomy in children, fundus examination during operation for retinal detachment, etc. Relatively dark conditions are preferred for carrying out certain investigations in the radiology department and cardiovascular laboratory. Under these conditions the anaesthetist is not able to see the movements of the reservoir bag and has to resort to other methods of monitoring respiratory functions, such as feeling the movement of the anterior abdominal wall or by listening to the breath sounds with the help of a stethoscope.

It was therefore decided to evaluate the use of a reservoir bag painted with luminous paint so that it would glow in the darkness. It was found that the whole bag need not be painted. Accordingly, only the borders of the two adjacent sides of the reservoir bag and a dot or a circle in the middle of these two sides need to be painted (fig. 1).

FIG. 1

The luminous paint contains stable zinc sulphide pigments which are non-radioactive. These pigments are suitable for excitation by daylight, artificial light or ultra-violet radiation. After excitation there is a good initial brightness with a useful afterglow for 1–2 hours. The length of afterglow depends on many factors such as thickness of coating intensity and duration of excitation, dark adaptation of the observer, etc.

It is recommended that the painted surface of the reservoir bag should be exposed to daylight or artificial light for about 15 minutes before using the bag. Satisfactory results can be obtained by exposing the bag to the operating theatre light for a minute or two prior to its use. It is hoped that luminous reservoir bags will add to the safety of the patient undergoing operation in dark conditions.

Messrs. William Warne & Co. Ltd., of Barking, Essex, are considering the possibility of manufacturing these luminous reservoir bags and further information should be obtained from them.

S. MEHTA

BURNLEY

ANTI-HAEMORRHAGIC EFFECT OF ETHAMSYLATE UNDER HYPOTENSIVE ANAESTHESIA

Sir,—The article by Deacock and Birley (Brit. J. Anaesth. 1961, 41, 18), "The anti-haemorrhagic activity of ethamsylate (Dicynene): an experimental study", deserves more detailed consideration. It demonstrates that (table I, column B) out of nineteen subjects only five showed dramatic benefit (placebo/ethamsylate blood loss ratio exceeding three times). This overall proportion is in accord with the following hitherto unpublished findings.

When assaying ethamsylate in a pilot scheme in patients undergoing prostatectomy some years ago, I found that there were too many variables for proper assessment. Because of this an attempt was made to evaluate the effects of ethamsylate under strictly controlled hypotensive anaesthesia, with one surgeon, during pterygoid space and middle ear micro-surgery, conditions where any change in blood oozing is obvious.

Even with hypotensive anaesthesia there are a minority of cases where some oozing inexplicably persists. It was decided to test intravenous ethamsylate, 500 milligrams, when this occurred. Cases were excluded unless the blood pressure remained absolutely steady and other surgical and anaesthetic factors remained strictly unchanged. Both surgeon and anaesthetist (microscope side arm view) had then independently to agree there was either no material change or very obvious improvement. From twelve cases fulfilling the above criteria, in eight there was no apparent effect, but in four oozing lessened suddenly and dramatically from 10 to 15 minutes after the injection.

The two series, though small, agree that a dramatic curtailment of blood loss occurs in approximately the same proportion of cases, and this applies despite differences in drug timing, operation site, and species.

Could research on why ethamsylate is only apparently convincingly effective in a quarter to a third of cases throw new light on the problem of surgically induced bleeding?

No ill effects were observed from using ethamsylate during genuine hypotension. With expectations of better haemostasis in a known proportion of cases, this poses the further question, whether ethamsylate has a place as a routine adjunct to hypotensive anaesthesia.

C. H. BOYD

MAIDSTONE

METHOHEXITONE AND PROPANIDID

Sir,—I have read with interest the article entitled "Methohexitone and Propanidid" by Drs. Lind and Roland (Brit. J. Anaesth., 1969, 41, 150), in which they relate the incidence of side effects to the rate of administration of methohexitone.

An investigation concerning the effect of varying the rate of injection on the induction characteristics of methohexitone anaesthesia has been published elsewhere: and this confirms that the incidence of both excitatory and respiratory phenomena increase with increase in the rate of injection (Barron, 1967).

D. W. BARRON

BELFAST

REFERENCE