

Macintosh and Mushin, for, in probing for the first rib here, each unsuccessful insertion of the needle damages the plexus to some minor extent. Surely it is wiser to sound for the first rib with the needle well lateral to the plexus. The first rib can often be easily palpated at this part, and it exposes a broad flat surface normal to the line of the needle at this point. If more than one probe has to be made before striking the rib one knows that no vital structures are being transfixed in this area.

Brachial-plexus-block anaesthesia following my technique, or Macintosh and Mushin's modification of it, has been used for some years by many anaesthetists and surgeons. Humphries's figures coincide with my own and the results of the Oxford school. Is this the general experience? Complications following plexus anaesthesia seem singularly rare, but it would be interesting to know if any serious complications have been encountered by others, particularly evidence of injury to the plexus. I have always avoided using it in septic conditions, but I wonder if my aversion to its use in such cases is justified.

It would also be of interest to know what modifications of the technique have been adopted by others. I originally used some 60 ml. of procaine-adrenaline solution simply because I found such a large volume in an adult safe, and I considered too large a volume more likely to be successful than too small. I have no doubt, however, that those anaesthetists who have now a much greater experience than I have found a smaller volume of a more dilute solution adequate.—I am, etc.,

Glasgow.

JAMES PATRICK.

REFERENCES

- ¹ *Brit. J. Surg.*, 1940, **27**, 734.
- ² *Local Anaesthesia: Brachial Plexus*, 1944, Oxford.

SIR,—Dr. S. V. Humphries's observations (January 21, p. 163) on brachial plexus block are both informative and interesting. It is, as he says, a very valuable and inexpensive form of anaesthesia (and safe). The parentheses are mine, because three years ago I was asked to remove the broken end of a needle which snapped in the supraclavicular triangle while the plexus was being infiltrated, using the Macintosh and Mushin technique. I was in the theatre at the time of the mishap and proceeded to remove the needle without altering the patient's position or using any more anaesthetic.

An incision 3 in. (7.5 cm.) long, centred over the injection site, was made parallel to the clavicle. The track of the needle was followed down to Sibson's fascia, when the protruding end of the needle was located with the tip of the index finger. Further dissection and retraction exposed the needle, which was seen moving on respiration, on the medial aspect of Sibson's fascia. It was ultimately retrieved with some difficulty from its precarious position.

The patient made an uneventful recovery, but the anaesthetist and I had an anxious fifteen minutes.—I am, etc.,

Liverpool, 7.

R. MARCUS.

Analgesia in Childbirth

SIR,—Dr. C. Langton Hewer states (December 31, 1949, p. 1521): "More recently pethidine and physeptone have been employed, but unfortunately all these drugs tend to diminish uterine contractions and to depress the infant's respiration." I have read well over forty papers on pethidine dealing with approximately 20,000 pregnancies, and the experience of the authors of these papers differs from that of Dr. Langton Hewer. For example, Carter¹ reported on 2,700 cases on which he had used "a brand of pethidine" as follows:

"There is no respiratory depression, there is no asphyxia of the newborn from too much analgesia of the mother, there is no increase in the usually small number of slow-to-breathe, full-of-mucus babies. From the local observations in over 2,700 cases I feel that we are nearer than ever before to an ideal analgesic method in obstetrics and that 'demerol' hydrochloride (pethidine) in combination with scopolamine or some other drug is not surpassed by any other drug or method which has to date been administered or has been in common use."

In England, Barnes² thus described her results in 500 cases of pethidine in labour: "It may be concluded that pethidine approaches the criteria for an ideal analgesic for use in labour more than any other known substance. Its chief advantages are

safety, lack of toxic effects, lack of effects on the course of labour, and simplicity of administration." Roberts³ discussed pethidine in combination with scopolamine and concluded that since the introduction of pethidine and scopolamine in the obstetric department of her hospital there has not been an increase in the foetal mortality. In cases of foetal morbidity the cause could not be attributed to the analgesia given during labour. From analysis of her figures showing effect on the length of the first and second stages she says: "Thus there is a suggestion that pethidine and scopolamine in fact have the effect of shortening labour if anything." She gives tracings of the action on uterine contractions, and writes, "There did not seem to be any alteration of rhythm or amplitude."

Emlin,⁴ in a report on 5,000 consecutive deliveries without a maternal death due to pregnancy, describes his routine sedative as 100-mg. doses of pethidine given intramuscularly. Scott and his colleagues⁵ showed by experiments on animals that pethidine had a stimulating effect on respiration. All other substances except one in the series tested caused depression of respiration.

At a time when every effort is being made to improve analgesia in childbirth I think it important that these facts should be brought to light to correct the impression which Dr. Langton Hewer's article gives, since readers taking it to heart might refrain from using the drug and thus deprive many women in labour of what is described as "a safe, non-toxic, and efficacious substance."—I am, etc.,

Welwyn Garden City, Herts.

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REFERENCES

- ¹ *Wisconsin med. J.*, 1945, **44**, 1170.
- ² *British Medical Journal*, 1947, **1**, 437.
- ³ *Ibid.*, 1948, **2**, 590.
- ⁴ *Ibid.*, 1949, **1**, 260.
- ⁵ *Science*, 1946, **104**, 587.

Animal Experiments

SIR,—In the annotation (December 31, 1949, p. 1518) upon this subject you make a statement which is, I think, so mistaken that it greatly weakens your case, with which, in general, I am in agreement. You say that no good reason exists for making a distinction between dogs and other animals, such as rats. The dog, like man and certain other higher animals, has personality—that is to say it can make, in some degree, personal relationships. Animals such as the rat, which cannot do this, are very properly regarded as lower, and this is an important distinction. The dog is able to regard a man, in some degree, as a friend or an enemy, but a rat can only appreciate a human being as a source of food or a source of discomfort. There are indeed other arguments for not exempting dogs as experimental animals, but the one you give is not, I feel, a valid one.—I am, etc.,

Cambridge.

C. G. EASTWOOD.

Treatment of Varicose Veins

SIR,—I feel I would like to continue my long-range correspondence on this subject and to reply to Dr. Hanschell's letter (October 22, 1949, p. 932). There are certain matters in this letter that are not strictly concerned with the treatment of varicose veins and that call for comment first. The repetition of the phrase "of course" is called provocative. On rereading my letter I agree, and can only assure Dr. Hanschell that this was not intentional but the result of poor composition. He has, moreover, rubbed it in with vigour in his reply, so I am happy to cry quits. Dr. Hanschell is right when he supposes that I more than glanced at Sir Heneage Ogilvie's article (September 24, 1949, p. 665), and I agree that he damns with restraint—an admirable quality seen in all his writings.

Now as to the treatment of varicose veins, I have reread Dr. Hanschell's letter (March 19, 1949, p. 500) and agree that his original statement was "Sclerosant injection is dangerous or useless," and not "and useless." However, I have always understood that he meant that an injection that was strong enough to be of use was, at the same time, dangerous, and,