

as thiotepea is to miss one of the points of our communication (5 July, p 64), which is that bleomycin is an effective, safer agent to use as it does not cause myelosuppression and can therefore be given to those patients who have previously received aggressive cytotoxic chemotherapy. Less than 50% of the dose is absorbed and systemic effects are minimal. In addition, the inadvertent subcutaneous injection of bleomycin does not cause tissue necrosis and ulceration. It is for these reasons that we consider intracavitary bleomycin a safer agent for both inexperienced and experienced oncologists to administer. It is up to the individual to decide what price he pays for that safety.

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### Arterial puncture

SIR,—I would like to comment on the article by Professor D C Flenley in "Procedures in Practice" dealing with arterial puncture (12 July, p 128). I would agree with him that puncture of the brachial artery is preferable to the radial since the procedure is not only rather less painful at the brachial artery but is less likely to give rise to arterial thrombosis. However, his diagrams show very clearly in two places that he prefers puncture in the antecubital fossa or, it would appear, just below.

My main objection to this site is that the artery, although easily palpable, is often restricted by the bicipital aponeurosis and any haematoma forming there may cause pressure on the median nerve. We had three such cases some four or five years ago<sup>1</sup> and since then have carried out arterial puncture and cannulation about 2½ cm above the elbow crease or higher. In this site the artery is not tightly enclosed and we have had no further cases of median nerve damage. A subsidiary point which does not come out of the article is that the brachial artery bifurcates at the region of the elbow.

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<sup>1</sup> Littler WA. *Postgrad Med J* 1976;52, suppl 7:110-1.

SIR,—I read with interest the article by Professor D C Flenley on arterial puncture in the "Procedures in Practice" series (12 July, p 128). He describes the traditional technique of obtaining arterial blood, which I was taught as a medical student. This method, however, has numerous drawbacks.

Why, for example, is it necessary to use a green (21 G) needle? Such a large instrument is not only more painful but also causes more trauma to the artery than smaller needles. Perfectly adequate samples (even greater than the 10 ml suggested) may be obtained with orange (25 G) needles. A needle attached to a syringe may be difficult to manoeuvre while palpating the artery whereas that in the form of a "butterfly" may be gently inserted into the skin and manoeuvred over the vessel whence the transmitted pulsation of the vessel is easily seen moving the wings of the butterfly. The artery is then transfixed between index and middle finger while the other hand guides the needle into the vessel. The whole system—

that is, butterfly and plastic syringe—should have its dead space filled with heparin and on puncture of the vessel arterial blood is seen pulsating in the clear plastic tubing of the butterfly connector, thus obviating the need for a glass syringe. Gentle suction on the syringe then fills it with blood.

The use of 25 G needles enables the much more convenient radial artery to be punctured at the wrist. At this site palpation and transfixion of the artery is easier over the underlying bone. Indeed I have used this site on several occasions to obtain blood for reasons other than blood gas analysis in those such as the grossly obese in whom venepuncture is difficult if not impossible. The resulting haematoma is minimal provided constant pressure for five minutes is applied to the puncture site.

Professor Flenley claims that arterial puncture is a painful procedure requiring injection of local anaesthetic and that the unbeliever should attempt it on himself. In the course of experiments my own radial artery has been punctured on several occasions. Each procedure was less painful than venepuncture and left a dull ache lasting a day over the site of the puncture.

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\*.\*We sent this letter to Professor Flenley, who replies as follows.—ED, *BMJ*.

SIR,—I recommend arterial puncture using a 21 G (green) needle in the brachial artery on the basis of extensive experience over the last 20 years. I have occasionally used a 25 G (orange) needle attached to a syringe, but have not found it easy to detect the pulsation of blood into the syringe (which is essential to identify that an artery, and not a vein, has been punctured) when using this smaller needle. I have no experience of a 21 G needle on a "butterfly," but suspect that the smaller diameter of needle will still have this disadvantage.

The reasons for preferring the brachial artery are as expressed in my article—namely, the patient is familiar with blood sampling at this site; the artery is of a reasonable size and is easily palpable; and, most importantly, the larger volume of the cubital fossa can accumulate any haematoma without excessive pain. I can only repeat that my own experience of several radial punctures on myself has been more painful than my many brachial punctures. I note that even Dr Morice had a dull ache lasting for a day after radial puncture, which in my experience is very unusual following venepuncture. I fail to see any objection to the use of local anaesthetic if this, as Dr Morice appears to agree, can diminish pain.

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### Proctoscopy and sigmoidoscopy

SIR,—I was interested in the excellent article in your "Procedures and Practice" series by Mr D J Ellis and Mr P G Bevan (9 August, p 435).

I have found that one can do a most satis-

factory sigmoidoscopy under intravenous diazepam in the ward without needing to take the patient to theatre or give any more potent anaesthetic, and would commend the procedure for various reasons. It is carried out in the left lateral position with the patient lying across the bed with the buttocks right to the edge.

Preparation is everything and patients should receive an enema on the preceding night followed by nothing by mouth after midnight (it is essential that well-intending night staff be prevented from giving a cup of tea to the sleepy patient). This means that a Beogex (sodium bicarbonate and anhydrous sodium acid phosphate) suppository at 7 am, the patient then emptying the bowel at 8 am and 9 am, can be followed by perfect visualisation at 10 am. The advantage is that the rectum is dry and normal and any inflammation is pathological and not induced by the cleansing agent. In my experience it is not satisfactory to do a sigmoidoscopy without bowel preparation, for although the rectum may be clear there are practically always faeces obstructing the view in the sigmoid.

With this method it is quite possible to complete the whole operation, including a biopsy if necessary, in about five minutes; and the diazepam will produce amnesia in the patient afterwards. One might view it as a medical rather than a surgical sigmoidoscopy.

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SIR,—We would like to take issue with Mr D J Ellis and Mr P G Bevan (9 August, p 435) where they advise a general anaesthetic for full visualisation of the lower sigmoid colon and rectum during sigmoidoscopy.

The rectosigmoid junction is negotiable in most patients, without anaesthetic, if an "adolescent" (250 × 16 mm) sigmoidoscope is used. Usually only the anxious patients and those with rigidity of the sigmoid colon from diverticular disease pose any difficulty. The knee-elbow position facilitates negotiation of the rectosigmoid junction in these groups.

General anaesthetic does not facilitate the negotiation of the rectosigmoid junction and it carries a significantly greater risk of perforation of the colon from overinflation and injudicious advancement of the sigmoidoscope. It is also expensive in time and bed occupancy.

In those patients who do require a sigmoidoscopy under general anaesthetic we would still advise the use of the smaller sigmoidoscope, the larger one (300 × 19 mm) being reserved for difficult biopsy and operative procedures.

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### Is it really a cerebrovascular accident?

SIR,—I was interested in Dr R L Bishton's letter (5 July, p 63). Professor Keith Simpson has this to say<sup>1</sup>: "Avoid ambiguities like 'birth injuries,' 'cerebrovascular accident,' or 'termination of pregnancy,' qualification of which must be given to make it clear that they were natural and not accidental or criminal occurrences." Later in the same paragraph he continues, "Indeed, vagueness of any kind is