INTRATHecal DIAMORPHine-BUPivACAIne DURING LABOUR

Sir,—In their study of pain relief during labour using incremental diamorphine and bupivacaine via an intrathecal catheter, Dr Kestin and colleagues [1] made no reference to the first reported use in labour of "single-shot" intrathecal morphine [2]. Had they felt able to do that, their interesting paper might have shed further light on the side effects. Both studies described side effects and both emphasized the high incidence of pruritus (75-100%). In the earlier paper [2], itching of the face and especially of the nostrils—for which a neuronal mechanism was invoked—signalled the onset of a working spinal opioid "block".

We investigated this apparently trivial symptom [3-6], and came to the conclusion that facial itching in particular, associated with spinal opioid administration, may have a neuronal origin, with an enkephalinergic "itching centre" in the floor of the fourth cerebral ventricle associated with the nucleus of the trigeminal nerve and bounded cranially by the auditory nuclei and caudally by the inferior cerebellar peduncles [3, 5]. Not everyone agreed with us [7].

Pruritus, of course, may also occur from extradural injection of opioid, and we agree with Welch and Thornton [8]: "The very rapid onset of itching in a region remote from that of application of the epidural anaesthetic (maxillary division of the trigeminal nerve) suggests a direct neuronal mechanism rather than an indirect one operating through the systemic distribution of absorbed fentanyl".

The work of Kestin and colleagues [1], Scott and colleagues [2-6], Welch and Thornton [8] and of ourselves lends support to the idea of a neuronal mechanism to account for the pruritus associated with spinal opioid administration in man.

Anaesthetists who use spinal opioids, especially in labour, might help to confirm or refute this hypothesis by reporting details of pruritus, including the times of onset and offset, the exact anatomical distribution (was it segmental?), the influence of local anaesthetic agents and the timing, effect and dose of opioid antagonists.

P. V. SCOTT
H. B. J. FISCHER
Redditch


Substances in the lumbar CSF usually take 3-6 h to reach the lateral and fourth ventricles because of the normal CSF circulation [1].

Release of histamine is well known after systemic morphine, which may cause pruritus, especially of the nose. A sustained increase in blood concentration of histamine has been reported after intrathecal morphine, but this did not correlate with the patients' symptoms [2]. Other opioids such as fentanyl cause much less histamine release, but the incidence of pruritus after spinal administration appears similar to that after morphine. Other workers have also come to similar conclusions concerning the central mechanisms of pruritus after spinal opioids [3].

Why the incidence of pruritus is increased during pregnancy is not known. Pregnancy alters the pharmacodynamics of local anaesthetics [4], and an association between extradural opioids during pregnancy and recurrent herpes simplex labialis has been reported [5]. Spinal opioids have complex and ill understood effects.

I. G. KESTIN
Plymouth


THE UNITED KINGDOM AS SEEN BY A JAPANESE ANAESTHETIST

Sir,—Through the visiting programme of the Japan Society of Anaesthesiology, I spent one and a half years as an academic visitor to the University of Edinburgh, and was able to experience the atmosphere of clinical practice and observe many differences between British and Japanese ways.

In Japan, with a population of 120 million, about 8000 candidates pass the national examination annually to become medical practitioners after 6 years of education. Legally, anaesthetists are not allowed to practise as specialists without a further qualification, termed "Registered Anaesthetist" (Hyōōbi in Japanese), which requires 2 years training. Thereafter, a "Board-Certified Anaesthetist (Shīdoi)" of the Japan Society of Anaesthesiology requires 5 years experience and success in a two-stage examination consisting of an MCQ and a written paper, a tōka seikei and practical assessment. Hyōōbi and Shīdoi are more or less equivalent to the D.A. and F.R.C.A. Anaest., respectively. At the end of 1991, there were about 9500 registered and 2700 board-certificated anaesthetists.

We have neither the NHS nor its career structure; there is no anaesthetic room and no trained anaesthetic assistant such as an operating department assistant or anaesthetic nurse. Some agents available in Europe are not available in Japan at present, for example propofol, atracurium and EMLA. On the other hand, we are able to use sevoflurane.

The number of operations performed per operating room in Japan is generally smaller than that in Britain, and the primary reason, I feel, is the long duration of operations. In the TV commercial film of Mazda, the Japanese car company, an employee who wears a white cap, white mask and white gloves, inspects a car, changing gloves one after another, and says at long last, "OK" with a Japanese accent! Japanese consumers require that a
company should produce a car of perfection; such perfection is also expected of Japanese doctors; this may prolong operations. British procedures, both surgical and anaesthetic, are quick and flexible but sometimes, I feel, rather less refined. Sterile techniques are often less thorough. To my surprise, spontaneous ventilation can be maintained with high-dose opioids and, to my astonishment, little happens, despite an increased measured end-tidal carbon dioxide concentration. In addition, the duration of hospital stay after surgery in Britain is usually shorter than that in Japan. I cannot but wonder if the tissue itself of British patients has more powerful healing abilities!

Morphine is used widely for postoperative pain relief in Japan. However, the required dose for weight is relatively small, and if we wish to be precise, according to the British anaesthetists, I feel sure that I would find a greater incidence of respiratory depression in Japanese patients. Sadly, I have no objective data to support this observation. Nevertheless, some British anaesthetists agreed with my observation and admit that they would give reduced doses to Oriental patients. It may be interesting study the difference between the races.

In both countries, nowadays, the young seem not to be keen on religion. However, Christianity is as rooted in British feelings as Buddhism and Shinto in Japan, and expressed by rather dry and rational feelings in the U.K., but more emotionally in Japan. These differences make organ transplantation from brain-dead patients possible in the U.K. In Japan, brain death has not yet been accepted legally. Although more than 30 liver transplantations have been performed, all have been from living donors (except for one occasion when an imported liver from a brain-dead donor was used). The first heart transplantation was carried out in 1968, and the recipient lived for 83 days. However, the surgeon fell under suspicion of murdering the donor and a second attempt has not yet been made.

In conclusion, I would like to express my gratitude again to all of the colleagues I have met in the U.K. for their help. Every experience gave me opportunities to reassess my views. The Japanese attitude to speak Japanese; it is a problem for us to demonstrate the fruits of our efforts to the world. I hope that we shall be able to use this visiting programme as a significant bridge between our countries.

A. Mizushima
Tokyo

CORRESPONDENCE

Aspirin, extradural anaesthesia and the MRC Collaborative low-dose aspirin study in pregnancy (CLASP)

Sir,—An editorial by Dr Macdonald [1] discussed the potential risk of extradural haematoma after extradural block in patients taking aspirin, and suggested that women taking aspirin during pregnancy should stop 7–10 days before delivery and have a bleeding time performed before extradural block is undertaken. Even with small doses of aspirin (60 mg daily) the bleeding time may be prolonged because aspirin irreversibly inhibits cyclo- oxygenase in platelets [2]. A large multicentre randomised placebo-controlled trial (CLASP) [3] of the effects of aspirin 60 mg daily on the incidence of pre-eclampsia and its sequelae currently is being conducted, under the auspices of the Medical Research Council, in more than 200 hospitals in Britain and elsewhere. More than 7000 women already had been included in this study, and so far post-delivery data are available for more than 5000 women. The co-ordinators and collaborators remain blinded to the interim results, but a data monitoring committee (chaired by Professor Sir Richard Doll) reviews the unblinded data regularly. In view of the concerns that have been raised about extradural anaesthesia, these were reviewed in detail last year, and the data monitoring committee reported that: "the present position is that 10606 women are known to have had epidurals by the end of January 1991. Fifty-six adverse reactions, in the broadest sense of the term, have been reported in relation to epidurals, 26 in women on aspirin and 30 in women on placebo. Haemorrhage has been reported on three occasions, in all instances limited to blood stained fluid in the cannula during treatment. One was in a woman on aspirin and two were in women on placebo. None of the other adverse reactions reported appear likely to have been due to haemorrhage. Aspirin had been stopped 23 days before delivery in the one case on aspirin, and placebo had been stopped 23 days before delivery and an unknown time before delivery in the other two cases". After a subsequent review in November 1991, it was reported that no further extradural bleeding had been recorded after an additional 592 extradural injections. Review of the data monitoring committee indicates that, among 2269 mothers exposed to aspirin in the last 10 days of pregnancy, there was slightly, although not significantly, less bleeding than among 7606 unexposed mothers. Despite this, it is clear that some anaesthetists have expressed concern about a possible increase in the risk of bleeding from extradural block in patients taking aspirin. In CLASP, therefore, we have recommended that aspirin (or matching placebo) tablets be stopped at about 37 weeks gestation, at which time any beneficial effects of aspirin on pre-eclampsia or intrauterine growth retardation are likely to have occurred. We do not recommend that bleeding times are performed routinely in women who may have taken aspirin just before a planned extradural (as this test is difficult to perform correctly and so may be misleading). It was felt that withholding extradural anaesthesia should be considered only if a conventional clotting screen performed for reasons other than possible aspirin use was abnormal (as patients in whom extradural anaesthesia is considered the technique of choice should not be denied it because of a test that is unconfirmed and probably remote, risk of extradural haematoma formation).

Case reports, such as the one cited by Macdonald [1], do provide reassuring information about the incidence of any serious risks of aspirin use with extradural anaesthesia, and they do not provide anything more than an association (not a causal link) between aspirin use and bleeding in extradural anaesthesia. Reliable information about the size of any real risks is likely to emerge only from controlled studies, such as CLASP. In the meantime, we hope that the approach adopted for the trial will provide some balanced guidelines for anaesthetists faced with the likely growing use of aspirin in pregnancy.

M. De Swiet
C. W. G. Redman
Co-Chairman, MRC Working Party for CLASP