Comment

Based on this sample, an estimated 3% of all entrants were sufficiently incapacitated by a training injury to prevent them from running, and an estimated 59% of all runners suffered some ill effects. These were severe enough to warrant medical care in only a trivial proportion of cases, however, and had little effect on working or social life. The race organisers advised entrants on how to prepare for the race. The small numbers of casualties occurring during the race (see our accompanying paper) and the relative unimportance of the after effects suggest that they took heed of the advice.

Older and more experienced runners were least affected. The increased opportunities that exist to compete in open-entry marathons means that the numbers with previous experience is growing. Even fewer problems before, during, and after the race should result.

We thank the South Yorkshire branch of the British Red Cross Society, the organising committee of the Sheffield Marathon, and Mr John Whetton, race director, for the facilities to undertake this study.

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Analgesia after herniotomy in a paediatric day unit

Local analgesia has become an accepted part of anaesthesia for paediatric surgery, particularly for minor surgery that can be planned on a day-stay basis. The most frequently used method is a caudal epidural injection, which has been shown to be effective in patients undergoing circumcision using a low volume of local anaesthetic solution.[1 2] Pain relief for operations using a groin incision, however, requires a much larger volume of solution.[3] We describe the use of ilioinguinal nerve blocks in postoperative analgesia in children undergoing inguinal herniotomy.

Patients, methods, and results

All 120 patients booked for inguinal herniotomy on a surgical day-stay list were studied. Those under 5 years old were given premedication consisting of oral diazepam and droperidol. General anaesthesia was induced either intravenously with thiopentone sodium, 5 mg/kg body weight, or by an inhalational technique, and was maintained with nitrous oxide, oxygen, and halothane breathed spontaneously from a suitable system.

After induction the patients were divided at random into two equal groups: the first group received no local analgesia; the second group had an ilioinguinal block performed using 0·5% bupivacaine without adrenaline, to a total volume of ½ ml/year of age. The major nerve supply to the groin is from the ilioinguinal and iliohypogastric nerves, which lie close together below the external oblique muscle, a finger's breadth from the anterior superior iliac spine. A hypodermic needle was inserted vertically at this point until the aponeurosis of the external oblique was penetrated. After aspiration, the analgesic solution was injected below the aponeurosis, laterally towards the iliac spine and mediocaudally towards the inguinal ligament.[4]

The patients were assessed at one, two, and four hours after operation by one of two experienced nurses, neither of whom knew whether a local analgesic had been given. Paracetamol was also given if the nurses thought it necessary and, if given, this was also noted. The two groups of patients were compared statistically using χ^2 with Yates's correction for small numbers.

Several children underwent operation late in the afternoon and in some cases parents were anxious to take them home. Consequently, results were unobtainable for the assessment at four hours in 13 children, who were excluded from the study. Results were available for 58 patients (mean age 4·7 years, range 1 to 10) who had had ilioinguinal blocks performed and 49 (mean age 4·2 years, range 1 to 10) who had had no analgesia. The table shows the numbers in each group who were pain free at the time of assessment and the numbers who had received additional analgesia. There was a significant difference between the two groups at all times, even allowing for the administration of paracetamol: almost all patients who had had ilioinguinal blocks were free of pain.

No of patients free of pain (figures in parentheses are number who received additional analgesia in that hour)

Time of assessment	Ilioinguinal block (n = 58)	No block (n = 49)	p Value
1 hour	52 (1)	23 (2)	p < 0·001
2 hours	56 (3)	30 (5)	p < 0·001
4 hours	56 (1)	35 (3)	p < 0·01

Comment

Paediatric day-stay surgery has been established in many centres to minimise the potentially unpleasant experiences of hospitalisation and separation from parents. It is in such patients that local analgesic blocks are particularly useful as they may avoid the necessity for strong analgesics. Individual nerve blocks use a small amount of local anaesthetic and are without the possible complications of the epidural technique. The method described provided analgesia rather than the total anaesthesia of a field block necessary for surgery. The technique is simple and may be performed quickly by either surgeon or anaesthetist.

The amount of pain experienced by children is often difficult to assess, especially in infants who cannot communicate their own feelings. Restlessness is often a sign of pain in the child but may be confused in the early postoperative period with emergence from general anaesthesia. In addition, distress may be caused by reasons other than pain—for example, absence of parents, loss of a favourite toy, or hunger. In this study the nurses, who both worked on the surgical ward, were asked to assess and record whether or not the children were in pain. If a child was restless they had to decide, using their experience, if this was due to pain or another factor.

There was a significant difference between the two groups at all times, even allowing for the administration of paracetamol when required. It was interesting to note that a large proportion of the patients who had had no local analgesic block were assessed as being free of pain despite having had no additional analgesia. This confirmed our impression that herniotomy is not painful for many children and does not justify the routine inclusion of a narcotic analgesic in the anaesthetic technique.

We believe that ilioinguinal nerve block is a simple, safe, and effective technique for the relief of pain after a groin incision in children. It is a useful addition to the techniques used in paediatric day-stay surgery.

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Corrections

Orthogeriatric rehabilitation ward in Nottingham: a preliminary report

An error occurred in this short report by Dr R V Boyd and others (2 October, p 937). The heading to the table should have read: "Number of all female patients admitted with fractured neck of femur to Nottingham hospitals in 1979 compared with 1977."

Campylobacter colitis associated with erythema nodosum

An error occurred in this paper by Dr M E Ellis and others (2 October, p 937). The second sentence of the second paragraph of the Comment section should have read: "Erythema nodosum with infective bowel disease has previously been reported only in yersinia infections."