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Caudal and Ilioinguinal/Iliohypogastric Nerve Blocks in Children

To the Editor:—Hannallah *et al.*[1] have evaluated ilioinguinal/iliohypogastric nerve block and caudal block in children undergoing orchidopexy, and conclude that both are safe and effective for ambulatory patients. They compared the effects of such blocks in terms of pain scores and analgesic requirements with those in children in a control group who received no intraoperative analgesia. While fentanyl was available for any child in the PORR, not surprisingly, there was a greater frequency of administration in the control group.

However, 67% of patients in the control group received no analgesia either intraoperatively or postoperatively, and the group as a whole had pain scores which were not significantly different from those of patients in groups who received analgesia using an invasive technique demanding considerable expertise to perform. Clearly, what the authors have demonstrated with their results is the similarity of the three regimens, both in respect to analgesia measured by their pain/discomfort scores, and in time to recovery for discharge. Are the authors justified, therefore, in advocating such a complex technique when the majority of patients in the control group require no analgesia at all?

Invasive blocks, such as the caudal block, in an infant are associated with the potential for complications. Yeoman *et al.*[2] reported that 31% of patients after caudal block using 1 ml/yr + 2 ml 0.5% bupivacaine were unable to walk 6 h postoperatively. Vater and Wandless[3] found that 8% of patients receiving caudal block who had received 0.5 ml/kg 0.25% bupivacaine, were unable to stand 6 h postoperatively. In a study of 50 children undergoing day case herniotomy, we have noted that 14% of patients complained of numb legs 4 h after 1 ml/kg 0.25% bupivacaine. It is surprising, therefore, that the authors encountered no complications of this nature following a dosage of 2.5 ml/yr, which approximates to between 0.33 and 0.8 ml/kg (calculating from expected weight tables for the age group studied). In addition, urinary retention has been reported by authors studying patients undergoing circumcision with the use of caudal analgesia. Vater and Wandless[3] found a frequency of delayed micturition at 4 h in their caudal group of 65%, and Yeoman *et al.*[2] noted this complication in 42%.

The dosage regimen to which the authors refer has been simplified by Hain[4] to: vol (ml) to block one segment = (age (years) + 2)/10. However, this appears to be at variance with the scheme actually employed by the authors, which results in excessive dosages, particularly with older children. The authors do not state whether a maximum volume was designated, and if, in this event, the concentration of the solution was altered, in the way that has been suggested by Armitage.[5]

Martin[6] has expressed doubt about the worth of caudal analgesia in circumcision, and Bramwell *et al.*[7] found no advantage of the caudal technique over parenteral dihydrocodeine in children undergoing orchidopexy. For the above reasons, therefore, we believe that the conclusions of this study are not supported by the data presented.

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