

Addition of clonidine and fentanyl to epidural blockade with 0.5% bupivacaine

To the Editor:

Clonidine, an α_2 agonist produces variable analgesia when given epidurally^{1,2} but without respiratory depression.^{2,3} Synergy between epidural opioids and clonidine in producing analgesia has also been reported.² In a double-blinded, randomised study, 26 patients undergoing major gynaecological surgery received lumbar epidural block with 17 ml 0.5% plain bupivacaine. In addition, to evaluate the extent of the synergy, they received epidurally:

Group 1 – saline 0.9% 2 ml

Group 2 – clonidine 150 μg made up to 2 ml with 0.9% saline

Group 3 – fentanyl 100 μg (2 ml) or

Group 4 – clonidine 75 μg plus fentanyl 50 μg made up to 2 ml with 0.9% saline

No patient had received any analgesia for at least 24 hr before surgery. All were premedicated with diazepam 10 mg *po* two hours before surgery.

In no group was analgesia sufficient for surgery produced. Most patients required general anaesthesia. The duration of analgesia (min) from completion of the epidural block until patients required further analgesia in the four groups is shown in the Table.

TABLE

Group 1	Group 2	Group 3	Group 4
<i>Number of patients</i>			
6	7	7	6
<i>Mean (range)</i>			
399.2 (220.5–795)	471.3 (345–720)	322.9 (205–405)	488.3 (345–805)
<i>Standard deviation</i>			
238.8	143.2	71.8	162.5

Although the mean duration of analgesia did not differ among the four groups, patients in Group 4 (clonidine 75 μg plus fentanyl 50 μg) had the longest duration of analgesia that was nearly three hours longer than the mean duration of analgesia experienced by patients in Group 3 (fentanyl 100 μg). This suggests that the dose of epidural fentanyl may be reduced by the use of concurrent epidural clonidine.

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