

Is Caudal Epidural Anaesthesia Effective for Anorectal Surgery?

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ABSTRACT

Objective:-To evaluate the efficacy of caudal epidural anaesthesia in selected patients having anorectal surgical conditions

Study design:-A prospective randomized study

Place and duration of study: Departments of Anesthesia and Surgery Lahore General Hospital, Lahore from September 2001 to August 2003.

Subject/Methods: The study includes 90 pts having common anorectal surgical conditions recruited with consent over 2 years. All patients were subjected to surgery planned under caudal block.

Results: Seventy nine patients (87%) were satisfied with the method of anesthesia and eighty three (92%) patients showed their satisfaction with the post operative pain control. Seventy six patients (84%) were contended with the preoperative information and seventy nine patients (87%) showed their willingness to choose this type of anaesthesia if required again. In ten patients there was failure of block resulted in a failure rate of about 11.11%.

Conclusion: The cost effectiveness, minimal requirement, satisfactory anaesthesia and high patients acceptability make caudal anaesthesia a usefull option for minor anal surgery.

Key words: Caudal Anaesthesia

INTRODUCTION

Regional anesthesia is often the technique of choice for anal surgery but caudal anesthesia is not popular because of the higher incidence of failure rate compared to epidural and spinal anesthesia. Caudal anaesthesia is readily applicable to minor anorectal surgery. This study was carried out to determine the efficacy and acceptability of caudal block in the selected patients having anorectal surgical conditions.

MATERIALS AND METHODS

One hundred and eleven patients with common anorectal surgical conditions were recruited in 12 months from September 2001 to August 2003. In all patients surgery was planned under caudal block. Caudal anaesthesia was established by using a standard 20-G needle with the patient in the prone position. The common anorectal conditions like hemorrhoids, fistula in ano, anal fissure and perianal abscesses were included in the study. Caudal anaesthesia was established using a standard 20-gauge hypodermic needle with patient in the prone position. Sacral Hiatus was identified and needle inserted into the sacral canal and about 25ml of 0.25% injection bupivacain was instilled. After 30 minutes required surgical procedure was done.

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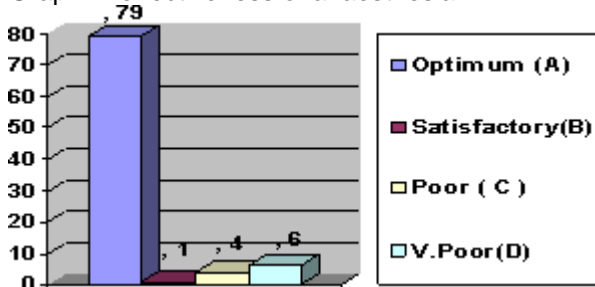
RESULTS

Some 90 patients with anorectal lesions were recruited to the study out of which 72 were male and 18 were female patients. Mean age was 44 (range 16-76) years. Procedures performed were: haemorrhoidectomy (33), lateral sphincterotomy (28), fistulectomy (19) and drainage of perianal abscess (10). All but 10 patients were discharged on the same evening with a mean postoperative stay of 6 (+/- 130 minute) hours. To assess the effectiveness of anaesthesia four classes were defined: (A) Optimum analgesia; (B) Satisfactory analgesia that allowed the operation to be performed correctly; (C) Poor analgesia, operations for which augmentation with posterior perineal block was required; (D) Operations involving conversion to general anaesthesia. The breakup of these classes is shown in Graph.1. In ten patients there was failure of anaesthesia out of which six patients were given general anaesthesia and in four patients the procedure was completed after anaesthesia augmentation with posterior perineal block (Table 1).

Table-I Patient's feedback

Question	Yes	No
Is method of anaesthesia (caudal block) satisfying?	79(87%)	11(13%)
Is satisfied with per-operative analgesia?	80(88.88%)	10(11.11%)
Are pre-operative information satisfying?	75(83.33%)	15(17.77%)
Will they choose caudal anesthesia if needed again?	79(87%)	11(13%)

Graph 1: effectiveness of anaesthesia



DISCUSSION

Caudal anaesthesia is simple and economical. First described by Sicard and Cathelin in 1990, caudal anaesthesia is readily applicable to minor anorectal surgery. Until recently there was hesitancy to perform anal and rectal procedures under caudal anaesthesia of fear of per-operative and post operative pain^{4,5}. This attitude has slowly changed due to better control of pain by long acting local anaesthetic drugs⁶. More than 80% of anorectal surgical conditions can be dealt successfully by this anaesthesia technique with greater convenience and economy without sacrificing of comfort or safety^{7,8}.

Regional anaesthesia offers many advantages i.e., it limits post anaesthesia nursing care, decreases patients recovery time and reduces the amount of analgesics required in the immediate post-operative period^{3,9}. Caudal epidural anaesthesia is simple to perform and is a safe and effective. The success depends upon proper patient selection. The success rate in the adult patient is better. As the age advances the caudal epidural space fat becomes more organized and fibrosed therefore proper dissipation of fluid sometime is not possible. Because of this reason the failure rate is slightly higher in caudal block as compared to saddle anesthesia however, it has got distinct advantage of having better quality and longer duration of postoperative analgesia^{3,9}. In a study conducted by Hunt and Luck the average duration of epidural analgesia with bupivacain 0.25% was 8-12 hours which is slightly higher as compared to 4-8.5 hours in our study. Gabrielli and colleagues³ in their study of 193 patients observed even longer duration of analgesia. The patients in whom the anaesthetic effect was satisfactory there was good sphincter relaxation and least discomfort was experienced by the patients.

According to the feedback on the basis of questionnaire 88.8% patients were satisfied with the pre-operative information and 87% patient showed their willingness to choose this type of anaesthesia if needed again which is well in accordance with the study of Thompson and colleagues⁵ of 129 patients in which 86% believe they received enough information. Their conclusion that patient tolerance and acceptability remained high and day case proctology can be performed with a high degree of patient satisfaction was same as was in some other international studies^{10,11}. The reduction of the hospital stay of patients treated for anorectal surgical conditions is an attractive alternative that lowers the cost without increasing the morbidity. Moreover, it is safe, cost effective and reduces the work load on elective list.

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