Advantages of spinal anesthesia in abdominal gynecologic surgery

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Summary

The advantages obtained in vaginal surgery and caesarean section using spinal anesthesia led us to test this anesthesia to verify feasibility, problems and advantages in abdominal surgery. Spinal anesthesia was performed in 60 patients between 21 and 87 years of age. Thirty-seven total abdominal hysterectomies with or without adnexectomy, 5 laparotomic miomectomies, 3 adnexectomies, 5 colposacropexies, 2 hysterectomies with lymphadenectomy, 7 Burch colposuspension with or without hysterectomy and 1 laparoscopy for sterilization were performed. No significant problems during surgery and the postoperative period were observed. Resumption of the different physiologic functions were more rapid, hospital stay shorter and compliance greater than with general anesthesia.

Key words: Anesthesia; Spinal; Abdominal surgery; Gynecology.

Introduction

The good results obtained in vaginal surgery and caesarean section with spinal anesthesia used in almost 100% of cases in our Division [1] led us to consider its use in abdominal gynecologic surgery. Only a few papers report on regional anesthesia for abdominal gynecologic surgery [2, 3] under particular conditions, where general anesthesia was impossible or contraindicated. We did not find references on postoperative advantages of this techniques in abdominal surgery.

Our goal was to verify the possible advantages of spinal anesthesia in the postoperative care of patients without affecting the intraoperative course and surgical decision making.

Material and Method

From 1 April to 31 December, 1997 a total of 60 patients between 21 and 87 years of age underwent different surgical abdominal procedures using spinal anesthesia, as shown in Table 1. Informed consent was obtained in all cases. Spinal anesthesia was performed immediately before surgery with the patient on the operatory table. A 27-gauge spinal needle was introduced at the L2-L3 level and 20-25 mg of normobaric bupivacaine was injected. At the same time a solution of 0.200 mg morphine and 0.15 mg atropine were injected for postoperative analgesia [1]. After injection the patients were placed in the supine position. The operating field was prepared as usual and about 5 minutes after the injection an abdominal incision was performed. After opening of the peritoneum the operative field was exposed and the intestinal loops gently displaced upward. A Semm's abdominal retractor was used. Each surgical procedure was performed using the usual technique.

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Results

In 2 cases conversion to general anesthesia with intubation was necessary because of the incomplete effect of spinal anesthesia. In 6 cases sedation during the procedure with propofol was necessary.

All patients showed very good compliance with this anesthesia proposing this choice in case of future surgery; even in the cases where conversion or sedation was necessary.

In the postoperative course vomiting was observed in 11 patients the day of surgery and in 2 the first postoperative day. Nausea was observed in 6 patients the day of surgery. Hypotension requiring only fluid addiction was observed only in 2 patients after surgery. A moderate pruritus due to morphine addiction was observed in 19 cases the day of surgery and in 5 cases the first operative day.

Addiction to morphine had a dramatic analgesic effect during the first 24 postoperative hours.

Only 6 patients required analgesic (ketoprofen 100 mg) the day of surgery and 10 patients the first postoperative day, when the effect of morphine terminated.

Self-ambulation was restored in 18 patients the evening of the surgery and in 40 cases the morning after, only in two cases on day 2 after surgery. Intestinal function was

Table 1.

Procedure	N°
Hysterectomy with or without adnexectomy	37
Myomectomy	5
Adnexectomy	3
Colposacropexy	5
Hysterectomy with lymphadenectomy	2
Hysterectomy with Burch colposuspension	7
Laparoscopy	1
Total	60

completely restored the day of surgery in 2 patients, the first postoperative day in 12 patients and the second postoperative day in the remaining. Most of the patients could be discharged on day 2 or 3 after surgery.

Discussion

Spinal anesthesia has been advocated as a safe alternative to general anesthesia for patients undergoing short procedures and when general anesthesia is contraindicated. Now spinal anesthesia is widely used for caesarean section and vaginal surgery [1]. It provides a quiet surgical field and good muscle relaxation. It also provides postoperative pain relief which decreases the need for narcotics, analgesics and sedatives. Fewer pharmacologic agents are used, reducing the possibility of allergy and other adverse drug reaction. Spinal morphine addiction provides 24-hour complete pain relief [1], of utmost importance for the rapid recovery of patients.

The results of our preliminary experience with spinal anesthesia in abdominal surgery clearly demonstrate the possibility of its application in this type of surgery. The postoperative course is dramatically improved as well as patient compliance. We did not observe any severe adverse reaction.

Conclusions

Our experience demonstrates that spinal anesthesia is advantageous in gynecologic abdominal surgery, reducing postoperative care and improving the quality of life in these patients.

References

[1] Castigliani G. P., Pellegrino A., Rovina L. *et al.*: "Removal of postoperative pain in caesarean section using subarachnoid morphine. Proceedings 2". World Congress on Labor and Delivery, Rome May 6-9, 1997.

[2] Silva P. D., Kang S. B., Sloane K. A.: "Gamete intrafallopian transfer with spinal anesthesia". *Fertil. Steril.*, 1993, *59*, 841.

[3] Guedj P., Elder J., Gozel Y.: "Etude comparèe de la rachianesthesie conventionelle et de l'anesthesie rachidienne et peridurale conjointe dans la chirurgie gyencologique". *Ann. Fr. Anesth. Reanim.*, 1992, *11*, 399.

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