

Subarachnoid anaesthesia plus general anaesthesia in abdominal surgery

Short communication

The aim of this study is to assess the effects of pain therapy with morphine plus bupivacaine in subarachnoid anaesthesia in those patients who must be subjected to general anaesthesia.

Criterion of inclusion: Patients ASA2; between 40 and 80 years, suffering from neoplasm of colon, stomach or of bladder.

Criterion of exclusion: Patients ASA $\frac{3}{4}$; with contraindication to subarachnoid anaesthesia and with severe cardiac pathology.

We have examined 30 patients with the criterion indicated for a year. The average time of surgery is 3 – 4 hours.

After an infusion start of 500 cc of saline solution, every patient was subjected to subarachnoid anaesthesia (pencan needle g 27) with morphine hydrochloride 0,1 mg and bupivacaine 0,5 % 12 mg. Then general anaesthesia was induced with propofol; fentanyl 0,1 mg; vecuronium bromide.

General anaesthesia was administered with sevoflurane 2% plus fentanyl 0,1 mg (only one dose at the beginning of surgery). In all cases we administered three additional bolus of vecuronium during surgery.

In only three cases there were complications during surgery and a laparotomy was performed, so we administered an additional dose of vecuronium.

Complications

During surgery there were some cases of hypotension and four cases of significant bradycardia (45 bpm). Such cases didn't require any supportive therapy since they resolved after few minutes. No other serious problems required an emergency treatment.

After waking up, all patients were alert, oriented and without pain, completely able to put themselves on a gurney without help. In the following 24 hours after surgery, no patient needed a pain treatment. Both diuresis and perfusion were good. Nausea and vomit were absent.

After 24 hours we have always given intravenous pain therapy with paracetamol and/or with ketorolac at low dose in only two administrations. As a result, the association between locoregional anaesthesia and general anaesthesia in major surgery proved to be very successful. The patient has always had a perfect pain and hemodynamic compliance with a reduced use of intravenous medicines. The patient waking up was perfect.

Reflections

In both laparoscopic and laparotomic cancer surgery is essential to keep patients in total analgesia during and post surgery. This ensures a faster recovery of the patient's physiological functions. Epidural anaesthesia is certainly the ideal solution, even better than subarachnoid anaesthesia. This kind of anaesthesia is indeed mentioned in ERAS protocol.

ERAS protocol is aimed to prepare the patient very well before

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Caiazzo S, Cangianiello M, Donadio G, Internicola P, Romano M, Forte M

Department of Anaesthesia, Italy

Correspondence: Forte M, Department of Anaesthesia, H. S. Maria della Pietà, Casoria, Napoli, Italy, Email mauro.l.nove@gmail.com

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surgery and to ensure an excellent analgesic coverage during and after surgery so that the patient can be autonomous in 24 hours' time both in motor functions and in active enteral feeding.

This protocol requires not to use major opioids. Epidural anaesthesia is considered the 'gold standard' for this aim. However, subarachnoid anaesthesia successfully achieves the same results, such as a better compliance of the patient, who is subjected to a less invasive procedure than epidural anaesthesia. The patient doesn't wear the epidural catheter after surgery: this is safer as the management of a medical device after surgery presents more problems in postoperative nursing in hospitals where postoperative intensive care is not present, such as placing of the epidural catheter in patient movement and frequent difficulties in the correct management of the epidural catheter, of medicines and of hemodynamics.¹⁻⁵

Conclusion

The data we have obtained encourage this procedure and represent a good compromise for the management of patients who must be subjected to oncological abdominal surgery even according to ERAS protocol.

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