

Day Case Surgery for Pressure Sore in a Tetraplegic Patient

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Due to progress of medicine, the number of spinal cord (SC) injured patients is growing with long-term survival [1], and the number of these patients presenting for elective surgery is increasing. Anaesthetic management in these patients is associated with specific difficulties. We report the case of one tetraplegic patient operated with a 23h day care treatment.

A young male patient 33 year old, ASA III, with a tetraplegia due to traumatic cervical lesion (C5) was scheduled for pressure sore surgery. Since his trauma management, he went on to tracheotomy and he was had been secondarily decannulated in the aim to close his ostomy. He was able to breathe and cough spontaneously and except for repeated tracheal suction, he did not need any respiratory treatment. Since he left the intensive care unit, he had no episode of autonomic dysreflexia; he was also tolerant to upright position. Before this operation, he only complained of shoulder and cervical pain related to muscle spasms and received daily oral tramadol (150mg) and clonazepam (10mg). His preoperative anaesthetic examination revealed no significant problem. Standard monitors and an i.v. line were placed in the operating room. His tracheostomy tube was removed and 5% lidocaine was pulverized through the ostomy, then a tracheal tube (6,5mm) was softly inserted in the trachea. After breathing 100% oxygen, a 50/50 mixture of air –oxygen with sevoflurane was used to induce anaesthesia, and maintained with around 0.8 MAC. TIVA sufentanil with an effect site concentration at 0.3ng per ml was used for intraoperative analgesia. He received i.v. 15mg atracurium and was mechanically ventilated to maintain end-tidal carbon dioxide tension at 35–40mmHg. Then, he was set in the prone position.

Surgery lasted 35 min. He awoke ten minutes later and was admitted in PACU where he received i.v. 50mg ketoprofen and 1g acetaminophen. He did not complain of any pain including his previous shoulder and cervical pain. Two hours later he was admitted in surgical ward where he received i.v. 50mg ketoprofen and p.o. 10mg morphine every 6 hours. He was discharged the next day with no complaint of pain including the cervical and shoulder pain. He was revisited a few later without any event.

Pathophysiology of the chronic spinal cord lesions appears different from the acute phase. Cardiovascular changes are gradually adapted: autonomic dysreflexia is generally controlled and progressive tolerance to upright position is observed [1]. Spinal cord injury results in a reduced anaesthetic requirement by at least 30% [2]. We used control of the patient's cervical and shoulder pain to monitor a good level of analgesia.

References

1. Hambly PR, Martin B. Anaesthesia for chronic spinal cord lesions. *Anaesthesia* 1998;**53**:273–89.
2. Yoo KY, Hwang J, Jeong ST, Kim SJ, Bae HB, Choi JI, Chung SS, Lee JU. Anesthetic requirements and stress hormone response in spinal cord-injured patients undergoing surgery below the level of injury. *Anesth Analg* 2006; **102**:1223.