**Conclusions:** Intrathecal dexmedetomidine combined with low-dose bupivacaine spinal anesthesia prolonged duration of sensory block, potentiated motor block, and improved analgesic efficacy in elderly underwent TURP.

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### CONTINOUS EPIDURAL AND INTRAVENOUS OPIOID ANALGESIA ON HAEMODYNAMIC STABILITY AFTER SEVERAL PELVIC FRACTURE

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Background and aim: Continuous epidural analgesia (CEA) improves excellent pain control in patients with pelvic fractures. Haemodynamic instability followed by retroperitoneal hemorrhagie in the first 48 hours often post-pones application of CEA what enhances need for parenteral use of high dose of opioids. The aim was to compere the influence of early CEA) and intravenous opioid analgesia (CIOA) on haemodynamic stabiliti in patients with pelvic fractures.

**Methods:** Fifty trauma patients with pelvic fractures were divided in two equal groups and included in prospective, randomized study. In bought groups, analgesia started with sufentanil 10  $\mu$ g h<sup>-1</sup> in the first 24h. After that, in Group EP CEA (levibupivacain 0.125%, 5-7 ml h<sup>-1</sup>) and in Group O CIOA (sufentanil 5-10  $\mu$ g h<sup>-1</sup>) was applied. PICCO monitoring was established. Data were analysed by SPSS 11.0.

**Results:** In the first 24 hours during CIOA, bought groups had high need for fluid replacement (Group EP=3.2+/-0.3, Group O=3.0+/-0.5 L/24h) (P=0.0928). Second day, SVRI was lower in O Group (1300-1520; EP Group=1700-1810)(P=0.0243) and recovered with 500-750 ml of crystal-loids. ITBVI was statistical more stable in Group EP (950+/-50; Group O (1100+/-30)(P=0.0001) specially by patient with low CI (< 3.0)(1000+/-120; Group O=1200+/-70)(P=0.0000). During CEA only 10% of patients with low CI (< 3.0) had need for catecholamine support and during continuous opioid analgesia 32% of them (P=0.036).

**Conclusions:** Early CEA with 0.125% levibupivacain is safe as CIOA in patients with pelvic fractures but without opioids complications and better haemodynamic stability.

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## DOES SPINAL ANESTHESIA EFFECT ON POST SURGICAL DELIRIUM AT OLD PATIENT?

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**Background and aims:** Delirium is a non specific syndrome which is accompanied with disequilibrium in consciousness, attention, perception, speech, memory, psychomotor and sleep. Delirium rate after anesthesia relates factors (age, alchohol consumption ,status of primary perception function, electrolyte and glucose disturbance and type of surgery.

**Methods:** 80 patients 55-75 years (mean 59.8 years) underwent prostatectomy and hernioraphy at randomized trial anesthetize by spinal(A) and general (B) for operation.all patients by Memorial Delirium Assessment Scale until discharge of hospital accorded.

**Results:** Sleep disturbance was 11.2% of all patients but no saw psychomotor and behavorial disturbance post anesthesia.

**Conclusions:** We thought alchohol consumption, status of primary perception function, electrolyte and glucose disturbance and type of surgery are effect on postanesthsia delirium to type of anesthesia.

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# COMBINED SPINAL-EPIDURAL ANESTHESIA (CSE) FOR ORTHOPEDIC SURGERY - A RETROSPECTIVE ANALYSIS OF 508 CASES. PRELIMINARY STUDY

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Background and aims: Combined spinal-epidural anesthesia (CSE) is frequently used anesthesia technique especially for obstetric and orthopedic surgery. There are some concerns about safety and reliability of this method. We analyzed a preliminary group of 508 out of 4500 patients to evaluate efficacy and safety of this method for lower limb orthopedic procedures in private hospital.

**Methods:** All analyzed patients were ASA I (n=468) and II (n=40). Mean age was 33.4 years. To perform the block needle-through-needle technique with Espocan set (BBraun,Germany) was conducted. Epidural space was identified blindly by a loss of resistance to injection of saline. After CSF appeared at the hub of the spinal needle mean dose of 14,5 mg 0,5% heavy bupivacaine was administered to the subarachnoid space. Subsequently epidural catheter was introduced through Tuohy needle to epidural space. If spinal anesthesia was sufficient, epidural administration of bupivacaine with fentanyl (n=296) or sufentanyl (n=212) started 90 minutes after.

**Results:** Spinal anesthesia was suffitient in 484 patients (95.3%). 24 patients (4.7%) needed epidural top-up to start the surgery. Complications were: bradycardia (n=190, 37.4%), treated succesfully with atropine (0.01 mg/kg) and hipotension (n= 28, 5.5%) treated with fluid infusion and ephedrine (5-10 mg). There were no severe complications such as permanent neurologic injury, infection or hematoma.

**Conclusions:** Results of this preliminary study indicate that CSE is safe and efficient anesthesia technique for orthopedic surgery.

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## EPIDURAL CATHETERIZATION IN PATIENTS FOR BARIATRIC SURGERY

T. Nishiyama, Y. Kohno, K. Koishi, Japan.

**Background and aims:** Epidural catheterization is difficult in obese patients. We investigated the usefulness of ultrasound in epidural catheterization in patients for bariatric surgery.

**Methods:** Sixteen patients for bariatric surgery were enrolled after written informed consent. The location of the vertebral process and dura was checked by ultrasound. The distance from the skin to the durra was measured. After the location of the spinal process and durra by ultrasound, an epidural puncture was performed with a 12 cm 17G Tuohy needle with an angle of 45 to 60 degrees against the skin. An epidural space was recognized by a loss of resistance and a catheter was inserted.

**Results:** Patients were 6 male and 10 female of 39 (mean) years, 166 cm, and 126 kg (body mass index: 46). The vertebral process was not recognized by hand in all patients. Ultrasound could show clearly the vertebral process but obscurely the dura. However, in all patients, an epidural catheterization was successful. The distance from the skin to the epidural space was 9.1 cm and that to the dura by ultrasound was 6.5 cm. The distance to the epidural space (Y) = 1.98 + 1.1 X (the distance to the dura by ultrasound) ( $r^2 = 0.86$ ). Height, body weight and BMI did not correlate with the distance to the epidural space.

**Conclusions:** Ultrasound is useful for epidural catheterization in patients for bariatric surgery. The distance to the epidural space could be suggested by the distance to the dura by ultrasound.

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## CONTINUOUS SPINAL ANAESTHESIA FOR HIP FRACTURE SURGERY IN ELDERLY, HIGH-RISK PATIENTS

M.J. O'Sullivan, S. Szucs, F. Loughnane, Ireland.

**Background and aims:** Continuous Spinal Anaesthesia (CSA) is the technique of producing and maintaining spinal anaesthesia by injecting small doses of local anaesthetic intrathecally, via an indwelling catheter. There has been a resurgence in interest in the use of CSA in recent years.

This study aimed to define the characteristics and perioperative course of patients receiving CSA for hip fracture surgery in our institution and document any perioperative complications related to the use of CSA.

**Methods:** This retrospective review of all cases of CSA for hip fracture surgery in our institution, over a 6 month period, looked at 34 patients from hospital admission to discharge/death. Perioperative and patient details were recorded.

**Results:** The mean age of the patients was 86.4 years (range 72-104). All patients selected for CSA were ASA 3 or 4. The mean total volume of local

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