

the ureter, 2 each due to urinoma and lymphocele. Two patients who had direct UCN developed intrinsic ureteric obstruction ureterovesical anastomosis after removal of double-J stents, with consecutive hydronephrosis. One was treated conservatively with re-insertion of double-J stent, and the other was reoperated and performed UCN with Boari flap technique. All patients with UTI were treated with culture-specific antibiotics and maintained on prophylactic antibiotics. Urethral stricture at one patient was managed with optical internal urethrotomy and periodic dilatations.

**Conclusions:** In our series there is a low incidence rate of intrinsic ureteric obstruction (0.8%) because of routine use of stented extravesical anastomosis by modified Lich Gregoir technique. The rate of intrinsic ureteric obstruction may be reduced markedly with this technique. Ureteral leakage and extrinsic compression may occur despite the presence of stents. Early catheter and stent removal does not compromise the anastomosis and may help in reducing the rate of UTI.

### S138

#### Evaluation of pain perception in patients undergoing transurethral procedures under general or epidural anaesthesia

S. Tyritzis, K.G. Stravodimos, A. Alevizopoulos\*, V. Migdalis, I. Adamakis, D. Mitropoulos, C.A. Constantinides. *Athens University Medical School, Dept. of Urology, Athens, Greece*

**Introduction and Objectives:** The majority of published reports investigate the results of general and epidural anaesthesia separately. Several papers compare the effect of these methods in terms of peri- and post-operative morbidity (blood loss, side-effects and possible complications). To our knowledge this is one of the few attempts of comparing the 2 methods by recording the patient's pain perception and tolerance of the transurethral procedures.

**Material and Methods:** The study comprised 97 and 47 patients who underwent transurethral bladder tumour resection (TUR-B) and prostatectomy (TUR-P), respectively. Post-operative pain severity was recorded using an 11-point visual analogue scale (VAS). Pain scoring was stratified by age, gender, tumour stage and grade. Clinical and demographical characteristics were compared using the Mann-Whitney U test for continuous variables and the chi-square test for categorical variables. Odds ratios were used to quantify the strength of association between variables. Kruskal-Wallis test was used to estimate equality of population medians among groups and the Mann-Whitney U test for comparison between the groups. The Spearman correlation coefficient (when appropriate) was used to examine the independence between categorical variables.

**Results:** VAS score was greatest at discharge from recovery room (time 0h) for general anaesthesia vs epidural [1.5(0-8) vs 0 (0-8) ( $p=0.027$ )]. The pattern changes significantly at 8h and 12h for general anaesthesia's analgesic efficacy compared to epidural [1.02 (0-6) vs 2.05(0-6) and 1.62 (0-7) vs 0.2 (0-8) ( $p=0.017$  and  $p=0.007$  respectively)]. A higher VAS score was observed from 0h to 24h for pT2 patients. Patients with resected tumour volume  $>10\text{ cm}^3$  presented VAS score  $>3$  at 8h and 24h ( $p=0.050$ ,  $p=0.036$ , respectively).

**Conclusions:** It seems that epidural anaesthesia is more effective during the first 2 post-operative hours, while general prevails at later stages and at larger traumatic surfaces. Finally, we incidentally found that tumour stage plays a significant role in post-operative pain, a point that requires further verification.

### S139

#### Evaluation of the postsurgical pain management after urological surgery

G. Atanassov<sup>1\*</sup>, M. Ahrens<sup>2</sup>, X. Krah<sup>1</sup>, M. Ilic<sup>1</sup>, E. Hauschild<sup>1</sup>, M. Worm<sup>2</sup>, G. Eschholz<sup>1</sup>. <sup>1</sup>*Helios Klinik Blankenhain, Dept. of Urology, Blankenhain, Germany;* <sup>2</sup>*Helios Klinik Blankenhain, Dept. of Anaesthetics, Blankenhain, Germany*

**Introduction and Objectives:** A sufficient pain therapy affects postoperative wound healing process. In our hospital the pain management after open surgical prostate gland procedure range from the oral therapy algorithm with Oxycodon to the intravenous demand therapy with Piritramid. The effect of this therapy was prospective evaluated.

**Material and Methods:** 60 patients have undergone radical prostatectomy and/or enucleation of prostate gland adenoma in 2007 at our institution. The demand on short infusions with Piritramid was up to the 7th postsurgical day in those patients. Since August 2008 a new postoperative pain therapy was evaluated in 52 patients based on oral medication with prolonged Oxycodon, if necessary, combined with morphine. The pain intensity was evaluated in both groups by means of VAS.

**Results:** Due to the oral therapy pattern from the first postoperative day until the hospital release a reduction of the average pain intensity has been archived from 2.34 (range 0.29-5.11) to 1.71 (range 0.05-3.53) in VAS scale. The groups were comparable regarding demographic and clinical parameter (age, BMI, ASP). The difference was statistically significant in one multi-variants analysis ( $p=0,001$ ).

**Conclusions:** The oral opioids seem to be a superior alternative to the intravenous pain management for the postsurgical analgesia after large open surgical prostate interventions. Therefore at our institution the postoperative therapy management was changed to oral medication regime.

### S140

#### The use of bupivacaine with morphine or neostigmine

H. Gani<sup>1\*</sup>, R. Domi<sup>2</sup>, M. Xhani<sup>3</sup>, I. Ohri<sup>2</sup>, E. Cobani<sup>2</sup>, A. Janko<sup>3</sup>, B. Hoxha<sup>3</sup>. <sup>1</sup>*University Hospital Centre, Dept. of Anesthesia and Intensive Care, Tirana, Albania;* <sup>2</sup>*University Hospital Centre "Mother Theresa", Dept. of Anesthesia and Intensive Care, Tirana, Albania;* <sup>3</sup>*University Hospital Centre "Mother Theresa", Dept. of Urology, Tirana, Albania*

**Introduction and Objectives:** to compare Neostigmine and Morphine effectiveness in patients underwent urologic surgery and spinal anesthesia

**Material and Methods:** Participants were 90 patients that underwent spinal anesthesia and had an urology surgery, participant were classified in three groups. Respectively each group received 15 mg Bupivacaine(sol.0.5%) and 50 ug Neostigmine, and the other group instead of Neostigmine received Morphine 300ug. And the third group received normal saline 0.5 ml. On those patients was monitored carefully maximal motor block level, the time that anesthesia lasted, the need for analgesics in 24 hours, interval analogue scale (VAS) pain score, and the frequency of side effects in 24 hours post anesthesia.

**Results:** Reviewing the results in this study was not seen any significant difference on the maximal block level, and sensory mids in the three groups. To the group that took Morphine, analgesia last longer and the need for analgesic to control post-operative pain was delayed in comparison with the group that received Neostigmine ( $<0.05$ ). Pain level (VAS) total on the first 24 hours was significantly higher for the group that received sol saline compared with the group that received Morphine or Neostigmine ( $P<0.5$ ). The level of motor block had significant differences regarding the lasting time, the group

that received Neostigmine the motor block last longer compared with the group that received Morphine or sol saline. Frequency of side effects was the same between the group that received neostigmine and the group that received morphine. On the other hand pruritus was significantly seen higher (72%) on the group that received Morphine compared to the group that received neostigmine. Or sol saline (0%) ( $P < 0.05$ ). Finally was found that the satisfaction was higher on the group that received Neostigmine compared with the group that received morphine or sol saline.

#### S141

##### Preoperative use of ketamine for treatment of acute postoperative pain

H. Gani<sup>1</sup>\*, R. Domi<sup>1</sup>, M. Xhani<sup>2</sup>, I. Ohri<sup>1</sup>, A. Janko<sup>3</sup>, B. Hoxha<sup>2</sup>, E. Cobani<sup>4</sup>. <sup>1</sup>UHC Mother Theresa, Dept. of Anesthesia and Intensive Care, Tirana, Albania; <sup>2</sup>UHC Mother Theresa, Dept. of Urology, Tirana, Albania; <sup>3</sup>UHC Mother Theresa, Dept. of Urologji, Tirana, Albania; <sup>4</sup>UHC Mother Theresa, Dept. of Anesthesiology and Intensive Care, Tirana, Albania

**Introduction and Objectives:** To evaluate the effectiveness and the tolerance of Ketamine preoperative of acute postoperative pain. Postoperative pain control is often limited because of the side effects of the narcotics: such as nausea and vomiting. An alternative with non-opioid low-priced drug such as Ketamine could be very effective when used in preoperative phase to increase pain control levels post-operatively and with fewer side effects.

**Material and Methods:** The study was a controlled randomized. The participants of the study are 150 patients of ages from 18 years old to 75 years old, and underwent the urology. All patients were ASA I-II. All subjects were treated with 5 mg of midazolam one hour pre-op. Participants were placed in two groups, the first group received Ketamine 0.5 mg/kg/p and the other group didn't take Ketamine but placebo sol.isotonic. Saline 0.9%. The analysis was done by two independent MD without any information if the participant had taken Ketamine or placebo. The charts to be reviewed were randomly assigned. This study evaluated hemodynamic parameters such as blood pressure, heart rate, respiratory rate, pain level in scale of 1-10 reported by the participants, and amount of Morphine used to control pain. Furthermore, we evaluated the frequency of side effects. The patients have received one dose of bolus ketamine before incision. All participant did receive endotracheal anesthesia. From the analysis of the 75 patients who received Ketamine was found that the level of pain was reduced, or the time that pain medication was required was extended, or both. reduced the amount of morphine used and furthermore, it decreased side effects such as nausea and vomiting post surgery. Side effects were decreased or were completely absent. Ketamine was used in a low enough dose to prevent the psicomimetike effects Ketamine is an antagonist of NMDA receptor, and specifically blocking of those receptors results on preventing of hyperalgesic effects of the Morphine.

**Results:** Ketamine in this study is used preoperatively in subanesthetic doses, and has and an analgesic effect on pain control postoperatively. This is shown by the decreased level of Morphine in the first 24 hours post-operation. In addition, Ketamine reduces nausea and vomiting post-operation. Furthermore, other side effects are minimized or not present at all.

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#### S142

##### Complications of neuraxial blocks in urology, our 10-year experience

R. Domi<sup>1</sup>\*, I. Ohri<sup>2</sup>, M. Xhani<sup>3</sup>, A. Dyrnishi<sup>2</sup>, H. Gani<sup>2</sup>.

<sup>1</sup>University Hospital Center, Dept. of Anesthesia and Intensive Care, Tirana, Albania; <sup>2</sup>University Hospital Center "Mother Theresa", Dept. of Anesthesia and Intensive Care, Tirana, Albania; <sup>3</sup>University Hospital Center "Mother Theresa", Dept. of Urology, Tirana, Albania

**Introduction and Objectives:** Neuraxial techniques have proved to be extremely safe, however there is still a risk for complications. The complications of epidural, spinal or combined spinal-epidural anesthetics can range from the bothersome to the crippling and life-threatening. The complications can result from physiological side effects, placement of the needle or catheter, and drug toxicity. Our goal is to present our 10-year experience of complications of neuraxial techniques in urology.

**Material and Methods:** This was a retrospective study. During period 1999-2009 in our Service were performed 7351 neuraxial anesthetics for urologic surgery. The patients were ASA 1-3. There were recorded the type of neuraxial technique, complications, type and concentration of local anesthetic drug. We recorded the frequency of respiratory depression, backache, postdural puncture headache, cardiac arrest and death, spinal or epidural hematoma, epidural abscess, meningitis, transient neurological symptoms, local anesthetic toxicity.

**Results:** Out of 7351 neuraxial anesthetics, 6547 (89.07%) were spinal, 401 or 5.45% were epidural anesthesia, 276 (3.75%) were combined spinal-epidural and 127 or 1.73% combined general-epidural anesthesia. Respiratory depression and arrest were recorded in 4 cases (0.05%), cardiac arrest and death 0%, meningitis and abscess 0%, hematoma 0%, transient neurological symptoms 72 patients (0.97%), backache in 501 cases or 6.8%. Postdural puncture headache was recorded in 457 patients or 6.2% (women 379 or 82.9% and 78 men or 17.06%). Out of 457 patients with postdural puncture headache 311 were caused by multiplex puncture efforts and 47 by using the inappropriate needle size. There was not recorded any case with neurological local anesthetic toxicity.

**Conclusions:**

#### S143

##### Sufentanyl vs fentanyl postoperative morphine sparing effect in urologic surgery

R. Domi<sup>1</sup>\*, H. Gani<sup>2</sup>, A. Dyrnishi<sup>2</sup>, A. Janko<sup>3</sup>, B. Hoxha<sup>3</sup>, M. Xhani<sup>4</sup>. <sup>1</sup>University Hospital Center, Dept. of Anesthesia and Intensive Care, Tirana, Albania; <sup>2</sup>University Hospital Center "Mother Theresa", Dept. of Anesthesia and Intensive Care, Tirana, Albania; <sup>3</sup>University Hospital Center "Mother Theresa", Dept. of Urology, Tirana, Albania; <sup>4</sup>University Hospital Center "Mother Theresa", Head of Dept. of Urology, Tirana, Albania

**Introduction and Objectives:** We often use opioids for anaesthesia and postoperative pain. Our aim is to test what effect may have sufentanyl or fentanyl on morphine postoperative dose in urologic patients.

**Material and Methods:** That was a double blind, prospective, randomised study. There were 96 ASA1-2 patients undergoing general anaesthesia for urologic procedures. The patients were divided in 2 equal groups: g S we use sufentanyl in induction 0.3 mcg kg<sup>-1</sup> (48 patients) and g F we use fentanyl 3 mcg kg<sup>-1</sup> as opioid in induction (48 patients). There were no differences in anaesthetic plan. The patients received only the induction dose of opioids. We recorded the pain intensity using Verbal Analogue Scale (from 1-10/10) 30 minutes after extubation. Then we used morphine in patients with VAS  $\geq 5/10$  in order to