1- 
**Single dose paravertebral blockade versus epidural blockade for pain relief after open renal surgery: A prospective randomized study**

**Abstract**  
Background: Paravertebral block has been established technique for providing analgesia to the chest and abdomen. We conducted the current study to compare single dose paravertebral block (PVB) versus single dose epidural blockade (EP) for pain relief after renal surgery.

Methods: Eighty patients scheduled for renal surgery were randomly assigned into two groups according to the analgesic technique, PVB group or EP group. General anesthesia was induced for all patients. Post-operative pain was assessed over 24hr using 10-cm visual analogue scale (VAS). Post operative total pethidine consumption was recorded. Any postoperative events like nausea, vomiting, shivering or respiratory complications were recorded. Hemodynamics and blood gasometry were also recorded.

Results: EP group showed significant decrease of both heart rate and mean blood pressure at most of the operative periods when compared with PVB group. There was no difference in total rescue analgesic consumption. Post operative VAS showed no significant difference between the studied groups. Post operative events were comparable in both groups.

Conclusion: Single injection paravertebral block resulted in similar analgesia but greater hemodynamic stability than epidural analgesia in patients undergoing renal surgery, therefore this technique may be recommended for patients with coexisting circulatory disease.

Keywords: Anesthesia, epidural, paravertebral, pain and renal surgery

2- 
**Efficacy and effect of TIVA with propofol or dexmedetomidine versus sevoflurane without muscle relaxant during repair of the brachial plexus**

Background: Total intravenous anesthesia (TIVA) versus inhalational anesthesia was selected as the anesthetic method, in order to avoid the use of muscle relaxants during repair of brachial plexus injury. We designed this study to determine effect and efficacy of TIVA versus sevoflurane during repair of brachial plexus injury.

Methods: Sixty patients scheduled for repair of injured brachial plexus from January 2009 till December 2011 were enrolled in this prospective, single-blind, randomized study. They received either inhalation induction with sevoflurane and maintenance with sevoflurane and fentanyl (Group 1) or TIVA with, propofol and fentanyl (Group 2) or TIVA with dexmedetomidine and fentanyl (Group 3). Hemodynamics, intubation conditions, sedation score were assessed. Post-operative pain using visual analogue scale (VAS) was assessed. Discharge time, Post operative respiratory condition, any postoperative complications were recorded.
Results: All groups provided a similar significant reduction in hemodynamics compared with baseline values. Respiratory rate values of dexmedetomidine-fentanyl group were significantly higher than those in other groups. Oxygen saturation values of dexmedetomidine-fentanyl group were significantly higher than those of propofol-fentanyl group. Time to reach an Aldrete score of 10 was similar in all groups. Patients in sevoflurane-fentanyl group have significantly higher visual analogue score than other groups. Sedation score was higher in the dexmedetomidine-fentanyl group.

Conclusion: TIVA with propofol and with dexmedetomidine was more effective and favorable anesthesia than sevoflurane anesthesia during repair of brachial plexus injury.

Keywords: TIVA propofol; dexmedetomidine; sevoflurane; brachial plexus

3-

**Evaluation of the effect of nebulized lidocaine and \( \beta_2 \) agonist versus intravenous lidocaine infusion in children undergoing rigid bronchoscopy. A prospective randomized blind study**

Background. This study was designed to compare the safety and the efficacy of combined nebulized Lidocaine and \( \beta_2 \) agonist (salbutamol) versus intravenous Lidocaine infusion, in children undergoing rigid bronchoscopy for foreign body extraction (FBE).

Methods. Forty children, aged 3 - 12 years, undergoing rigid bronchoscopy for FBE were randomly allocated to receive intravenous Lidocaine 1.5mg /kg followed by 1.5mg/kg/hour infusion (Group L n=20) or 1.5mg/kg of Lidocaine as nebulizer in combination with salbutamol in a dose of 0.15 mg/kg (Group LS n=20), immediately after induction of general anesthesia. Heart rate (HR), mean arterial blood pressure (MAP), oxygen saturation (Sao2), end tidal carbon dioxide (EtCO2), ease of passage of bronchoscope were assessed. Total sevoflurane consumption was monitored. Serum Lidocaine level was measured immediately after the procedure. Postoperative cough, laryngospasm, and hoarseness of voice were reported until discharge. Time to discharge from PACU was noticed.

Results. HR and MAB displayed no significant changes between studied groups. However, post induction values were significantly lower than the basal values. EtCO2, Sao2 and postoperative adverse effects were comparable between groups. No patient had serum Lidocaine level more than 2.7\( \mu \)g/ml. However, children in group L had significantly higher serum Lidocaine compared to group LS. Also group L showed significant increase in excellent intubating conditions than group LS this associated with significant decrease in total sevoflurane consumption in the same group.

Conclusion Intravenous infusion and nebulized lidocaine with salbutamol during rigid bronchoscopy under general anesthesia provided comparable intubating conditions and hemodynamics.

Key Words: Nebulized lidocaine; \( \beta_2 \) agonist ; rigid bronchoscopy

4-
Small volume colloid co-loading versus large volume crystalloid or colloid co-loading for post-spinal hypotension during cesarean section. A randomised controlled trial.

Background: Fluid co-loading may reduce the incidence of post-spinal hypotension during caesarian section. A smaller fluid volume will be adventitious for the mother and fetus.

Patients and Methods: We randomized 120 parturients into one of three groups. Large volume (10 ml.kg-1) lactated ringerâ€™s (Cr-10), tetrahydroxy ethyl starch (HES) 130/0.4(Col-10) groups or small volume (5ml.kg-1) HES (Col-5) group (n=40 / group) as fluid co-loading administered rapidly on dural puncture. Incidence of post-spinal hypotension, maternal hemodynamics, complications (Nausea, vomiting and discomfort), Interventions (Ephedrine and total fluid infused) as well as fetal gasometery were recorded.

Results: The primary objective was the incidence of hypotension which was significantly higher in Col-5 (smaller volume) group compared to both larger volume groups Cr-10 (71.8 vs. 43.2, P=0.02) and Col-10 (71.8 vs. 38.9, P=0.004) respectively. Percentages of pre-delivery hypotensive episodes were 68.3% vs. 80.5% vs. 92.3% in Cr-10, Col-5 and Col-10 groups respectively. Women requiring ephedrine and number of ephedrine shots were significantly less in the Col-10 group compared to the other groups. No significant differences were recorded regarding neither maternal complications nor fetal safety between groups.

Conclusion: Large volume HES co-loading or crystalloid co-loading reduced the incidence of post-spinal hypotension compared to the smaller volume (col-5) group.

Keywords: Co-loading, Hydroxyethyl starch, post-spinal hypotension, caesarian section

Hematological profile and transfusion requirement during hysteroscopic myomectomy: A comparative study between oxytocin and tranexamic acid infusion

Abstract Background: Oxytocin is uterotonic drug reducing uterine blood loss. Tranexamic acid reduce blood loss in various settings. Data on their efficacy are limited in gynecological hysteroscopy. This study was conducted to compare the effect of oxytocin versus tranexamic acid on hematological profile and transfusion requirement during hysteroscopic myomectomy (HM).

Methods: Fifty womenscheduled for HMwere randomly assigned into two groups. Tranexamic acid (TXA) or oxytocin (OXY). TXA was injected with 15 mg kg\(^{-1}\) of tranexamic acid, followed by infusion of 10 mg kg\(^{-1}\) h\(^{-1}\). In OXY, 10 Unites of oxytocin were added to 500 mL saline (400 mU/min) during surgery. Spinal anesthesia was induced for all patients. Hemodynamics, hematological data, number of transfusions, serum sodium and central venous pressure were measured.

Results: TXA showed significant decrease of heart rate 30 and 45 min and 1 and 2 h when compared with OXY. Post operative Hb and Hct showed significant decrease (p<
0.001) in TXA compared with OXY. CVP in TXA displayed significant increase (p<
0.001) at 15 min after spinal blockade and 30 min, 45 min, 1 h and 2 h. Serum sodium
showed significant
decrease in TXA (p< 0.001) compared with OXY nearly throughout study period.
Conclusion: Use of oxytocin during HM was accompanied with stable hemodynamics,
 hematological
profile and less transfusion requirement compared with the use of tranexamic acid.