

undertaken laparoscopically and the robot used for dismemberment and anastomosis. **Results:** Five of the six had their surgery completed robotically; open conversion was required in the patient who had undergone previous open pyeloplasty, the same patient required a blood transfusion due to haemolysis. Other surgical parameters (length of stay, operating time, complications, return to normal activities) were all in an acceptable range. Six month postoperative nuclear renography revealed no obstruction in any patient and all were asymptomatic. **Conclusion:** Robotic assisted pyeloplasty is technically feasible for the surgeon with little experience of laparoscopic suturing. Operative data and early follow-up results are encouraging.

55

#### Local anaesthetic reduces postoperative analgesic requirements in laparoscopic urological surgery

*H.S. KHAIRA\* and J.S. WOLF JR†*

\*Royal Melbourne Hospital, Melbourne, Victoria, Australia, †University of Michigan, Ann Arbor, Michigan, United States

**Objective:** To determine if local anaesthetic reduces patient discomfort following laparoscopic urological surgery.

**Methods:** Sixty-seven patients undergoing laparoscopic urological surgery were randomly assigned to either the treatment (0.5% bupivacaine) arm or the placebo (0.9% normal saline) arm. Patients, surgeon and data collector were blinded. The port sites and the hand assist port site (when present) were infiltrated at the outset of the procedure. Postoperative pain was determined with a standardized 10 point visual analog scale at consistent intervals.

**Results:** Thirty-three individuals were treated with the placebo (13 standard laparoscopic [SL] and 20 hand assisted laparoscopic [HALS]) and 34 with bupivacaine (17 SL and 17 HALS). Average pain scores for the placebo vs. bupivacaine group at 4, 12, 24 h were 3.9, 3.1, 3.6 vs. 3.0, 2.1, 2.0 ( $P < 0.10$ ). Mean use of morphine for the placebo group vs. bupivacaine group was: 26.1 mg (range 0–91.9) vs. 15.4 mg (range 0–49.5) at 12 h ( $P < 0.05$ ), 43.5 mg (range 0–136.9) vs. 26.2 mg (range 0–71.0) at 24 h ( $P = 0.07$ ) and 50.4 mg (range 0–154.9) vs. 28.3 mg (range 0–71.0) for total hospital stay ( $P < 0.05$ ). In multivariable ANOVA, use of bupivacaine, but not SL vs. HALS, was associated with reduced morphine use at all three time points ( $P < 0.05$ ).

**Conclusions:** At the outset of laparoscopic urological surgery in the upper retroperitoneum, port site and other incision infiltration with a long acting local anaesthetic reduces postoperative parenteral opioid requirements when compared with placebo controls.

56

#### Prostate glands larger than 75 cc result in worse outcomes following radical prostatectomy: implications for registrar training

*M.I. PATEL\*, W. CHAN†, H. WOO†, H. LAU†, M. DRUMMOND† and A. BROOKS†*

\*University of Sydney, Sydney, †Westmead Hospital, Westmead, New South Wales, Australia

**Introduction and Objective:** Open radical prostatectomy is a difficult and complex operation to teach residents. Many patient factors can increase the complexity of the operation, with the majority not being predictable prior to the operation. We hypothesised that large prostate glands (>75 cc) would result in increased difficulty, higher intraoperative complications, and subsequently poorer cancer and functional outcomes.

**Methods:** A retrospective analysis of the records of patients in our database of radical prostatectomies performed at Westmead Hospital. Patients operated on by the training urology registrar were identified and further analysed. Intraoperative as well as postoperative complications, pathology results and postoperative gain of potency and continence were evaluated.

**Results:** Between 2/6/1998 to 14/8/04, 181 open radical prostatectomies were performed at Westmead Public Hospital by the training registrar. Preoperative variables revealed that the majority of these patients had large volume cancer (171 pts with cT2 cancer, 70 pts with Gleason Score  $\geq 7$ ). PSA ranged from 1.2–27 ng/ml (median 6.9 ng/ml). Prostate size ranged from 11–112 cc (median 31 cc) measured by TRUS ultrasound. Correlation between calculated TRUS volume and prostate weight at surgery was high ( $r = 0.93$ ). Prostate glands greater than 75 cc were associated with older age

( $P = 0.001$ ), longer operation time ( $P < 0.001$ ) and higher estimated blood loss ( $P < 0.001$ ). Postoperatively, prostate glands >75 cc required median of 7 vs 3 months to achieve continence ( $P < 0.001$ ). At a median follow time of 45 months, men with prostates <75 cc had a 62% chance of achieving potency compared to 10% of men who has glands >75cc ( $P < 0.001$ ). Oncologically, larger prostates had less positive surgical margins ( $P = 0.006$ ) and less PSA recurrence ( $P = 0.024$ ).

**Conclusions:** Prostates larger than 75 cc result in longer operative times, higher blood loss as well as poorer continence and potency. Patients should be counselled accordingly and trainers should be prepared to supervise more carefully when teaching inexperienced trainees.

57

#### The impact of prostate size in laparoscopic radical prostatectomy

*C.M. CHANG, D. MOON, T. GIANDUZZO and C.G. EDEN*

North Hampshire Hospital, Basingstoke, Hampshire, United Kingdom

**Introduction:** Removal of a large prostate can be challenging during open or laparoscopic radical prostatectomy (LRP). Although gland size has been shown not to influence functional outcome in open radical prostatectomy (ORP) (Foley, 2003), longer operating times have been reported for transperitoneal LRP (El-Feel, 2003; Rassweiler, 2001). The aim of this study was to investigate the influence of prostate size on LRP outcomes.

**Patients and Methods:** Four hundred cases of LRP were performed. 111 LRP were performed using a transperitoneal approach and 289 using an extraperitoneal approach. 319 patients had a prostate weight  $\leq 75$  g and 81 patients had a prostate weight  $\geq 75$  g on final histology.

**Results:** Patients' age, weight, PSA, Gleason sum and clinical stage were all similar. Values are mean; <sup>1</sup>independent samples test; <sup>2</sup>Chi-square test.

Table 1: for 57

	<sup>1</sup> Gland weight (g)	<sup>1</sup> Op time (min)	<sup>1</sup> Blood loss (ml)	<sup>1</sup> Hosp stay (days)	<sup>2</sup> Compl	<sup>2</sup> + margins
Prostate <75 g	46.8	192	259	3.2	4.5%	21.5%
Prostate >75 g	97.8	207	289	2.9	10.5%	9.3%
P	<0.0001	0.03	0.25	0.04	0.07	0.03