34 Postoperative pain after laparoscopic nephrectomy

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Introduction & Objectives: We aimed to evaluate the effects on postoperative pain after transperitoneal laparoscopic nephrectomy.

Materials & Methods: 52 patients (33 males,19 females) were included in the study (13 donor nephrectomies, 16 malignancies, 23 other causes). Age, gender, body mass index (BMI), surgical history, causes of nephrectomy were recorded preoperatively. The duration of surgery, amount of surgical bleeding, location and size of the incision, the duration of the removal of the specimen and the amount of CO_2 (carbondioxide) used were determined. Specimen was removed by expanding the port site incision, gibson or pfannenstiel. Pain was monitored using visual analogue scale (VAS) at postoperative 3, 7, 24, 72 hours. Diclofenac sodium was used as an analgesic. The mean duration of the follow-up was 16±4.7 months. 34 cases were left side, 18 of them were right. In 26 cases the port was widened, in 10 cases gibson, in 16 cases the pfannenstiel incisions were conducted and the specimen was removed.

Results: The mean age was 51.5±16.2, BMI was 27.4±5.1, estimated bleeding was 80.1±64.8 cc. The incision size was 3.2±1.72 cm in the widened port,7.3±2.49 cm in the gibson incisions, 7.78±1.26 cm in the pfannenstiel incisions. Surgery time 104.9 ± 35.6 min, the removal time of the specimen; in the cases where the port was enlarged was 10.1±7.56 min, 8.5±2.75 min in the gibson incisions and 9.75±5.86 min with the pfannenstiel incision. The mean length of hospitalization was 4.0±2.26 days for those who widened the port location,6.2±4.34 days for the gibson incision,and 4.12±1.62 days for the pfannenstiel incision. The amount of CO2 gas used was 145.5±84.7 lt in the widened of the port and 124.3±47.6lt in the gibson incision and 135.7±75.2lt in the pfannenstiel incision. An average of 201.44±196.75 mg diclofenac sodium was administered orally. The effect of surgical history, BMI,incision size, incision site, specimen extraction time, amount of gas used and the analgesic dose used on VAS score was not statistically significant (p>0.05).The effect of surgical duration on VAS score change over time was statistically significant (p=0.039)(Table 1).

Incision site	BMI	Duration of surgery(min)	Incision length(cm)	Extraction time of specimen(min)	The amount of gas used(liter)
Widened port	26.6±5.3	102.5±36.6	3.2±1.72	10.1±7.56	145.5±84.7
Gibson incision	28.08±4.49	101.0±35.9	7.3±2.49	8.5±2.75	124.3±47.6
Pfannenstiel incision	28.5±5.28	111±35	7.78±1.26	9.75±3.99	135.7±75.4

Total	27.4±5.15 (p>0.05)	104±35.6 (p=0039)	5.4±2.81 (p>0.05)	9.69±5.86 (p>0.05)	138.4±75.2 (p>0.05)

Table 1:Perioperative data of incision methods

Conclusions: Postoperatively, the most important factor affecting the pain was prolonged surgery. Although laparoscopy is a minimally invasive, postoperative comfortable technique, patients should be adequately informed about laparoscopic surgery.