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Meeting abstract

Comparison between transperitoneal and retroperitoneal minimal invasive adrenalectomy in 189 cases

R Bellagamba, G Nigri, P Aurello, F D'Angelo, S Valabrega and G Ramacciato*

Address: Department of Surgery, St. Andrea Hospital, II School of Medicine, University of Rome "La Sapienza", Rome, Italy
* Corresponding author

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Aim

Laparoscopic adrenalectomy is the gold standard for benign lesions. So far only a few studies have compared the transperitoneal (TLA) and retroperitoneal (RLA) adrenalectomy. We present the results of our experiences on 189 cases comparing TLA and RLA.

Materials and methods

Between 1995 and 2005 121 TLA and 68 RLA procedures were performed. Three equal time periods were analyzed. Mann Whitney U test or two tailed Fisher exact test were used, where appropriate, by using SPSS for Windows 13.0. Statistical significance was set at $P < 0.05$.

Results

Period I

Twenty-nine patients were recorded. Mean operative time was 185.6 ± 37.2 min and 125.7 ± 37.7 min in the RLA and TLA subgroup (P < 0.005). Two procedures were converted in the TLA (splenic lesion and haemorrhage). The time of first oral intake was 1.25 ± 0.4 days after the RLA, and 2.76 ± 1.5 days after the TLA (P < 0.005). The mean hospital stay in the RLA subgroup was 3.8 ± 1.1 days versus 6.3 ± 2.7 days in the TLA subgroup (P < 0.005).

Period II

One hundred seven patients were recorded. Mean operative time was of 145.3 ± 47.1 min and 114 ± 51.6 min in the RLA and TLA respectively (P < 0.005). Intraoperative blood loss was 443. 4 ± 236 cc in the RLA group and 279.5 ± 637 cc in the TLA group (P < 0.005). The time of first oral intake was of 1.3 ± 0.6 days and 1.6 ± 0.9 days in the RLA and TLA respectively (P < 0.005). The conversion rate 5% and 6% in the RLA and TLA respectively.

Period III

Fifty-three patients were recorded. Mean operative time was of 139 ± 35 min and 97.8 ± 32 min in the RLA and TLA group respectively (P < 0.001). Intraoperative blood loss was 438 ± 177 cc in the RLA group and 144 ± 166 cc in the TLA group (P < 0.005). The time of first oral intake was of 1.1 ± 0.3 days and 1.6 ± 0.7 days in the RLA and TLA respectively (P < 0.005).

Conclusion

TLA and RLA have different advantages, but the latter requires more experience. We found a significant advantage in TLA about operative time and blood loss, in RLA for hospital stay and first oral intake, significant improvement were recorded in the RLA access between period I vs. II and I vs. III in the mean operative time, hospital stay and first oral intake.