The aim of our study was to evaluate feasibility, security and specific postoperative course in the laparoscopic liver resection (LLR) as well as long term results of LLR in term of morbidity and mortality in a series with numerous associated surgeries.

We performed a retrospective analysis of a continuous series of LLR performed between March 2003 and December 2011. There were 48 LLR in 47 patients, including 28 (58.3%) benign lesions (15 HNF, 4 hydatid cysts, 3 polyadenomatosis, 6 other lesions) and 20 malignant lesions (41.7%) (13 metastases and 7 hepatocarcinomas). The mean age was 50.6 years (range: 26-80). LLR constituted in a minor resection in 40 patients (83.3%) and a major resection, including 5 right hepatectomies, in 8 patients (16.7%). In 22 patients (45.8%), LLR was associated with another surgery (cholecystectomy, adrenalectomy, appendicectomy, ileostomy closure, incisional hernia, ovarian kystectomy, right adnexitomy, rectosigmoidectomy, sigmoidectomy, and tubal ligation) and in 2 patients with radiofrequency. There were 4 conversions (8.3%) and 1 per-operative and 17 post-operative complications (35.4%) (2 bile leaks). Mean OR time was 159 minutes. Transfusion was required in 4 patients (8.3%). Median hospital length of stay was 6 days (range: 3-36). Negative margins were achieved in 100%. Overall survival at 1 and 3-years was 100% in benign lesions and respectively 94.7% and 73.6% in malignant lesions. Disease-free survival at 1 and 3-year was 88.5% and 54%.

LLR is an alternative to open surgery for benign lesions as well as malignant ones, even when associated with other surgeries. The interest of LLR has to be further studied by randomized prospective controlled.