

LAPAROSCOPIC HAND-ASSISTED NEPHRECTOMY IN LIVING RELATED DONOR FOR KIDNEY TRANSPLANTATION: OUR CLINICAL EXPERIENCE

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Objectives: to investigate and introduce into practice the results of laparoscopic hand-assisted method of kidney harvesting from related living donor.

Introduction

First laparoscopic donor nephrectomy in the world was performed in 1995 by L. Kavoussian L. Ratner. Performing the donor nephrectomy by laparoscopic hand-assisted way for last few years became a main choice in many transplantation centers. According to the previous publications in Kazakhstan ever before there was not performed any laparoscopic hand-assisted donor nephrectomy. It's known that most of famous transplantation centers, dealing with minimal invasive organ harvesting, consider Hand Assisted Laparoscopic Nephrectomy as a "gold standart" approach.

Material and methods. From the 31 of May 2012 till December 2017 in our hospital were performed 259 kidney transplantations. Mean age of living related donors was $39 \pm 1,4$ years (max 62 y/o, min 21 y/o). Among the donors 147 (57, 5 %) were male and 112 (42.5%) were females. Laparoscopic hand-assisted donor nephrectomy was performed to 259 patients. Any case of conversion from laparoscopic to open surgery was not occurred. In some cases kidney grafts had anatomic specifications such as: in 1 case the graft had 3 arteries, in 36 cases there were 2 renal arteries in graft and in 3 cases there were 2 renal veins in graft.

Results. Mean duration of surgery and warm ischemic time decreased as the more experience was acquired. In the first year mean duration of surgery was 120 min ± 26 and warm ischemic time was 132 sec ± 65 and in the fifth year - 86 ± 21 min and 82 ± 23 sec, respectively. The duration of postoperative stay was 4.7 days (max 8 days and min 4 days). All patients returned to their life activities (except hard physical activity) two weeks postoperatively. There were a few complications in early postoperative period such as: wound infection in 4 cases, lymphorrhoea in 3 cases (managed conservatively). In one case postoperative hernia occurred in long-term postoperative period due to hard physical activity in early postoperative period.

Conclusion. As a result of acquired experience we consider laparoscopic hand-assisted donor nephrectomy as safe and effective intervention, which allows to minimize the traumatism of the surgery, thus decreasing the duration of rehabilitation period and leading to an increase in number of potential donors.