A Japanese Multi-Institutional Questionnaire Survey On the Use of Partial Nephrectomy

Introduction and Objectives: This study aimed to investigate factors that affect surgical treatment of patients with renal tumors.

Materials and Methods: In October 2011, questionnaires were sent to 40 institutions. The questionnaire, which was prepared with reference to the AUA small renal mass survey and the RENAL nephrometry score, focused on the factors taken into account when considering the use of partial nephrectomy (PN), and differences among candidates for open PN or laparoscopic PN. Results: We received replies from 32 institutions. The total number of surgeries performed for renal tumors at the 32 institutions was 844 in 2009 and 889 in 2010. A total of 670 RNs were performed in 2009 (laparoscopic: 458, open: 212), whereas 648 were performed in 2010 (laparoscopic: 450, open: 198), which represents a 3.3% decrease. In contrast, the number of PNs performed was 174 in 2009 (laparoscopic: 113, open: 61), and 241 in 2010 (laparoscopic: 138, open: 103), which represents a 38.3% increase. All respondents reported that renal function prior to PN was considered to be important, followed by tumor size, tumor number, and hereditariness. Overall, tumor factors were given greater emphasis than patient factors, except for renal function. According to differences between candidates for open and laparoscopic PN, there were significantly more indications for open PN than for laparoscopic PN, and they were based on tumor size, degree of protrusion, and distance from the renal sinus. In addition, a clear tendency toward avoiding laparoscopic PN for cystic renal cancer was found.

Conclusions: This survey showed a dramatic increase in PN from 2009 to 2010. All respondents reported that renal function prior to surgery is important when deciding to use PN, and that open PN tends to be indicated more for complicated tumors than laparoscopic PN.