[Nephron sparing surgery for synchronous and asynchronous bilateral renal cell cancer. A procedure using intraoperative ultrasonography, argon beam coagulator and fibrin glue]. [Japanese]

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Abstract:

BACKGROUND: Bilateral renal cell cancer (RCC) is an imperative indication of nephron sparing surgery (NSS). In the present study, we examined a new modality for NSS; intraoperative ultrasonography, argon beam coagulator (ABC) and fibrin glue.

PATIENTS AND METHODS: We performed NSS against 7 kidneys in 5 patients, including 3 with synchronous and 2 with asynchronous tumors. Radical nephrectomy was performed on the contralateral kidney in 2 patients including one with asynchronous and the other with synchronous RCC.

RESULTS: To examine satellite lesions and exact tumor extent within the kidney, intraoperative ultrasound scan was performed for all cases. Intraoperative ultrasound scan was shown to be useful for the above mentioned purposes because of its high resolving power. After clamping of the renal artery and surface cooling, dissection of the kidney was done by knife holder or by ultrasonic aspirator. Hemostasis was made by figure eight sutures with chromic catgut or poliglecaprone 25 monofilament, followed by coagulation using ABC, and with fibrin glue. Duration of arterial clamp ranged 20 approximately 78 min under surface cooling. Major complication did not occur except urinary fistula in one case caused by inadequate placement of a double J ureteral catheter. Postoperative renal functions were well preserved and any additional therapy for daily life was not

needed in each patient.

CONCLUSION: For performing NSS, the use of intraoperative ultrasound scan, ultrasonic aspirator, ABC and fibrin glue seemed to be useful, encouraging us to widespread its indication.