

ABLATION IN TREATMENT OF RENAL TUMOURS

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Radical endoscopic minimal-invasive treatment methods, such as thermal ablation, are sought after as an alternative to standard radical surgical treatment of kidney neoplasms. We analyzed patients who could be qualified to radical treatment due to T1a renal tumour.

Radiofrequency ablation (RFA) uses alternating current (460 kHz) conducted directly to the tumour with a needle electrode. 23 patients out of 129 who underwent radiofrequency thermal ablation of kidney tumours in years 2003-2010 were analyzed. The inclusion criteria were age below 70y, lack of major comorbidities (ASA score 1, 2), and competent contralateral kidney. Patients were qualified based on ultrasonography and computed tomography, in all cases tumour size was below 4cm.

All patients were followed-up with CT and USG every 6 months for 3 years.

In 19 of patients kidney tumour was biopsied before RFA and 10 of these biopsies were positive and revealed cancer. Seven patients required additional treatment due to recurrence visible in CT – 3 with positive biopsy result, 1 with negative and 2 without biopsy. Three of them were treated with second session of RFA, 2 with radical nephrectomy and 1 with partial nephrectomy. No disease dissemination was observed and all patients who received additional treatment remain disease free. Average follow-up time was 2y (3 months to 5y).

It seems that RFA can be safely used in selected patients with T1a tumour as an alternative to partial nephrectomy. Careful follow-up, similar to the one after NSS, is required after thermal ablation and allows early detection and successful treatment of recurrences.