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Introduction & Objectives: The modern surgery allows successfully operate RCC patients with any vena cava thrombus extension. Having possibilities of modern systemic therapy in locally advanced and metastatic RCC it is important to know contemporary long-term outcomes. We analyzed the efficacy and oncological outcomes of radical surgery for patients with RCC and inferior vena cava thrombus.

Materials & Methods: 83 patients in 2005-2018 underwent radical nephrectomy with IVC thrombectomy due to RCC and vena cava thrombus. The age mean was 59,14±1,01, male - 52 (62,7%), female - 31 (37,3%). IVC thrombus were: T3b - 55 (66,3%), T3c - 28 (33,7%). 22 patients (26,5%) had radiological evidence of metastasis at presentation, after surgery they received the first line of systemic therapy. We used Kaplan-Meier curves to estimate overall survival and disease-free survival.

Results: 2 patients (2,4%) died in the peri-operative period and were excluded from further analysis. Histology confirmed 77 clear cell RCCs, 3 - papillary cell RCCs and 3 - mixed RCCs. Lymph-nodes metastases detected in 33 (39,8%) cases. The overall five-year survival was 46.1%, median - 48 month. Overall five-year survival in M0 patients was 91,7% (median not reached), M+ was 27.2% (p=0,001). We did not find a difference in overall survival depending on the level of thrombus: T3b vs T3c (p=0,435). Five-year cancer-specific survival was 85,6% (median not reached), in cases M0 - 100% (median not reached), in M+ patients - 76,4% (p=0,1). Cancer-specific survival was also independent of the level of the thrombus: T3b v T3c (p=0,522).

Conclusions: The median of overall survival about 4 years and overall five-year survival more than 90% in the case of M0 status justify the aggressive radical surgery for patients with RCC and any inferior vena cava thrombus extension. Patients with M+ pre-operative status and progressive disease after surgery should be treated with systemic therapy to improve oncological outcomes. The overall and cancer-specific survival is independent of thrombus extension: T3b or T3c.