INTRODUCTION: Adrenocortical carcinoma (ACC) is a rare malignancy associated with limited treatment options and poor prognosis. The aim of this study is to review clinical characteristics and survival of patients with ACC in a single centre.

METHODS AND RESULTS: We retrospectively analysed 60 patients (37 female and 23 males) with pathologically confirmed ACC who were treated at our institution between January 2005 and December 2014. Staging was performed according to ENETS (European Network Study of Adrenal Tumors) criteria.

The median age at diagnosis was 49.0 years (range 14-74), mean tumor size was 11.3cm (range 3.1-30cm) and median follow up duration was 34 month (range 3-179). Patients with hormone secreting ACC (43%) mainly presented with isolated Cushing’s (20%), or combined with hyperandrogenism (18%) and 57% of patients had non-functioning tumor. The series included 47% low-stage tumors (3 stage I, 25 stage II) and 50% high-stage tumors (no stage III, 30 stage IV). At the time of diagnosis 33% of patients had metastasis. Surgical resection was performed in 90% of patients (73% had adrenalectomy, 15% tumor debulking). At 34 patients the median Weiss score was 6 (range 3-8); proliferation index Ki67 index>10% was in 20/27 patients (median 23.5%, range 2-65%). Up to January 2012 all patients received adjuvant mitotane treatment after surgical resection, and after that date only those with potential residual disease (R1/Rx resection) or with Ki-67>10%. Since August 2013, plasma mitotane and metabolites levels were measured regularly using HPLC in our institution. Twenty four percent of patients received chemotherapy (EDP 80%, EP 10%, 5FU-DTC-ADM 10%).

Median overall survival was 106 months (95%CI 17-194), figure 1. with 5 year overall survival 53% (76% in stage II, 33% in stage IV), figure 2. Median disease free survival was estimated 14 months (95%CI 8-20), figure 3.

CONCLUSION: We presented the overall survival of ACC patients in Serbia, our 10 years’ experience.