INTRODUCTION

Adrenocortical carcinoma (ACC) is a rare malignancy associated with poor prognosis. The aim of this study was to present clinical characteristics and survival of patients with ACC and to analyse the effect of prognostic factors on survival.

METHODS AND RESULTS

We retrospectively analysed 69 patients (46 female and 23 males) with pathologically confirmed ACC who were treated in our hospital between January 2005 and December 2015. The median age at diagnosis was 51.0 years (range 14-74), mean tumour size was 11.3cm (range 3.1-30.0cm) and median follow up duration was 36 month (range 3-240). Patients with hormone secreting ACC (43.5%) mainly presented with isolated Cushing’s (21.7%), or combined with hyperandrogenism (20.3%); 56.5% of patients had non-functioning tumour. The group included 50% low-stage tumours (4 stage I, 29 stage II) and 50% high-stage tumours (no stage III, 33 stage IV). Metastatic disease was present in 33% of patient at the time of diagnosis and 39% had acquired metastasis. Surgical resection was performed in 89.9% of patients; 78.9% of patients were treated with mitotane, and 24% with chemotherapy (table 1).

Median overall survival (OS) was 71 months (95% CI 41-100), with 5 year OS 51% (75.1% in stage II, 26% in stage IV). The 5-year OS for hormone secreting and nonsecreting tumours were 33% and 62%. Median disease free survival was estimated 6 months (95% CI 0-12)- figure 1 and 2. The results of univariate Cox regression analysis showed that gender, age, disease stage and tumour secretory activity were significant variables with patient survival and surgical resection and presence of metastatic disease at the diagnosis were highly significant. The results of multivariate Cox regression analysis showed that the surgical treatment (HR=7.16, 95% CI=1.48-34.55, p=0.014), age (HR=0.409, 95% CI=0.177-0.947, p=0.037), and presence of metastatic disease at the time of diagnosis (HR=0.217, 95% CI=0.101-0.729, p=0.010) were independent prognostic factors for survival ( table 2 and 3).

CONCLUSIONS

The presence of metastatic disease at the time of diagnosis is an unfavourable prognostic factor, while surgery and postoperative treatment with mitotane is a favorable prognostic factor for survival in patients with ACC.