A HUGE METASTATIC ADRENOCORTICAL CARCINOMA PRESENTING WITH CUSHING'S SYNDROME AND INFERIOR VENA CAVA THROMBOSIS CASE REPORT

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BACKGROUND

➢ Adrenocortical carcinoma (ACC) is a very rare but typically aggressive malignancy. About one quarter to three quarters of ACC is functioning with excess hormonal production.

CASE

➢ A 44 years-old female patient was admitted to out-patient clinic with obesity, oligomenorrhea and abdominal pain. She had central obesity, buffalo hump, and palpable flank mass. Hypertension, transient ischemic attack and epilepsy history was present.

➢ Serum cortisol, dehydroepiandrosterone sulfate (DHEAS) and testosterone levels were elevated. Cushing's syndrome was diagnosed by elevated urine free cortisol and a non-suppressible dexamethasone test. Serum aldosterone and renin activity, 24 hr urinary catecholamines were normal.

➢ Abdominal computerized tomography (CT) detected a 16x11 cm hypodense solid mass lesion at the right adrenal gland. It showed inhomogeneous appearance, irregular margin, neovascularization, liver invasion and inferior vena cava (IVC) thrombus extension (2.3x2.2 cm). It was adherent to the liver, kidney, and IVC (Image 1).

➢ Because of the unresectable adrenal mass, CT-guided abdominal mass biopsy was performed, and the diagnosis of ACC was made on the basis of pathology and immunohistochemistry. According to the AJCC staging system, the tumor was classified as T4NXM1, stage IV.

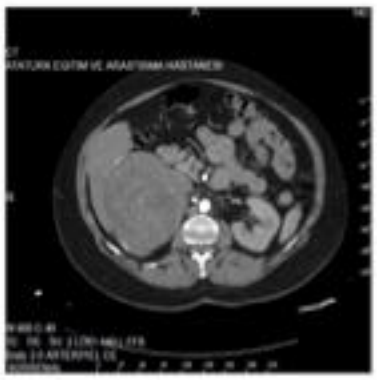

Image 1: Before treatment

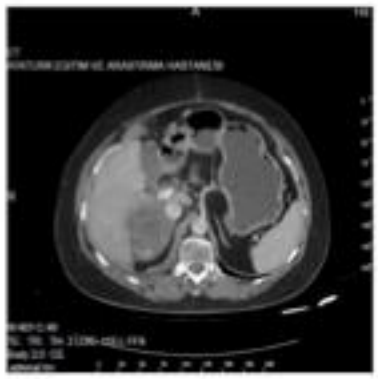

Image 2: After treatment

➢ Mitotane 4.5 gr/day and glucocorticoid was started. Also, warfarin was started due to presence of thrombus .The mean level of total testosterone and DHEAS tended to decrease during the follow-up.

➢ After 5 month, radiotherapy and chemotherapy (Cisplatin and Etoposide/3 cycle) were given to patient. Tumor regressed to 10x7.6 cm and IVC thrombus extension also regressed to 2.2x1.4 cm (Image 2). The patient showing partial remission underwent operation, but because of invasion to adjacent tissues, the tumor could not be resected.

Table: Laboratuary parameters of patient after Mitotane, radiotherapy and chemotherapy.

	Basal levels	After 12 weeks Mitotane therapy	After Chemotherapy and Radiotherapy
TSH (0.27-4.2 mIU/mL)	0.5	0.9	0.039
fT4 (0.9-1.7 ng/dl)	0.7	0.6	0.9
fT3 (2-4.4 pg/ml)	2.5	2	2.6
Cortisol (6.2-19.4 ug/dl)	27	7.1	5.3
ACTH (0-60 pg/mL)	1	1	2
Total testosterone (0.006-0.82 ng/ml)	0.82	0.55	0.5
Free testosterone (0.29-3.18 pg/ml)	3	5.1	1.28
DHEAS (0-340 ng/ml)	884	312	22.3
FSH (3.5-12.5 mIU/L)	10.4	47.3	65.4
LH (2.4-12.6mIU/L)	4.7	31.1	36.1
Estradiol (12.5-166pg/ml)	36.5	18.3	5

CONCLUSION

➢ Adrenal tumors in association with venous thrombosis are rare pathological conditions. No effective adjuvant treatment is currently available. We report a case of stage IV adrenocortical cancer with IVC thrombus extension and partial clinic response to the chemoradiotheraphy.