Metastatic Adrenocortical Carcinoma: A Case Report

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Introduction

• Adrenocortical carcinomas (ACC) are rare malignant tumours. An incidence of 1 to 2 per million per year is reported. We present a case of newly diagnosed metastatic ACC.

Case Report

• 70 yr old lady was admitted with a **one month** history of **new onset** hypertension, hypergylcaemia, **rapidly progressive** hirsutism and generalised weakness.

• O/E: Cushingoid appearance with facial plethora, severe hirsutism, central obesity and severe proximal myopathy.

• CT trunk: a large, lobulated, inhomogeneous, solid left adrenal mass **8x5cm in size** with enlarged local and paraortic lymph nodes. Pulmonary metastases were noted.

• She was diagnosed with metastatic adrenocortical carcinoma secreting cortisol and androgens. Aldosterone rennin ratio, plasma metanephrines and catecholamines were normal.

• A few days later she complained of severe abdominal pain and was diagnosed with sigmoid bowel perforation needing emergency laparotomy.

• Post operatively she developed severe hypokalaemia of (1.94mmol/L [3.5-5 mmol/L]) which was difficult to manage with oral potassium supplementation and aldosterone antagonist treatment.

• She became dependent on continuous intravenous potassium replacement therapy.

• Her post operative course was complicated by abdominal wound dehiscence. Wound healing was unsuccessful despite treatment with multiple antibiotic therapy. She additionally developed a thrombosis of the right femoral vein.

•She was given one shot of 50% doxorubicin-etoposide and cisplatin based chemotherapy. Unfortunately this resulted on neutropenic sepsis which needed treatment with antibiotics and granulocyte colony stimulating factor.

•Her wounds did not heal and she passed away a few weeks later.

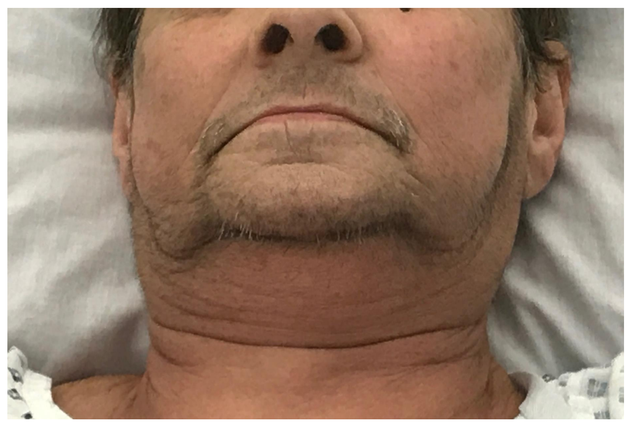
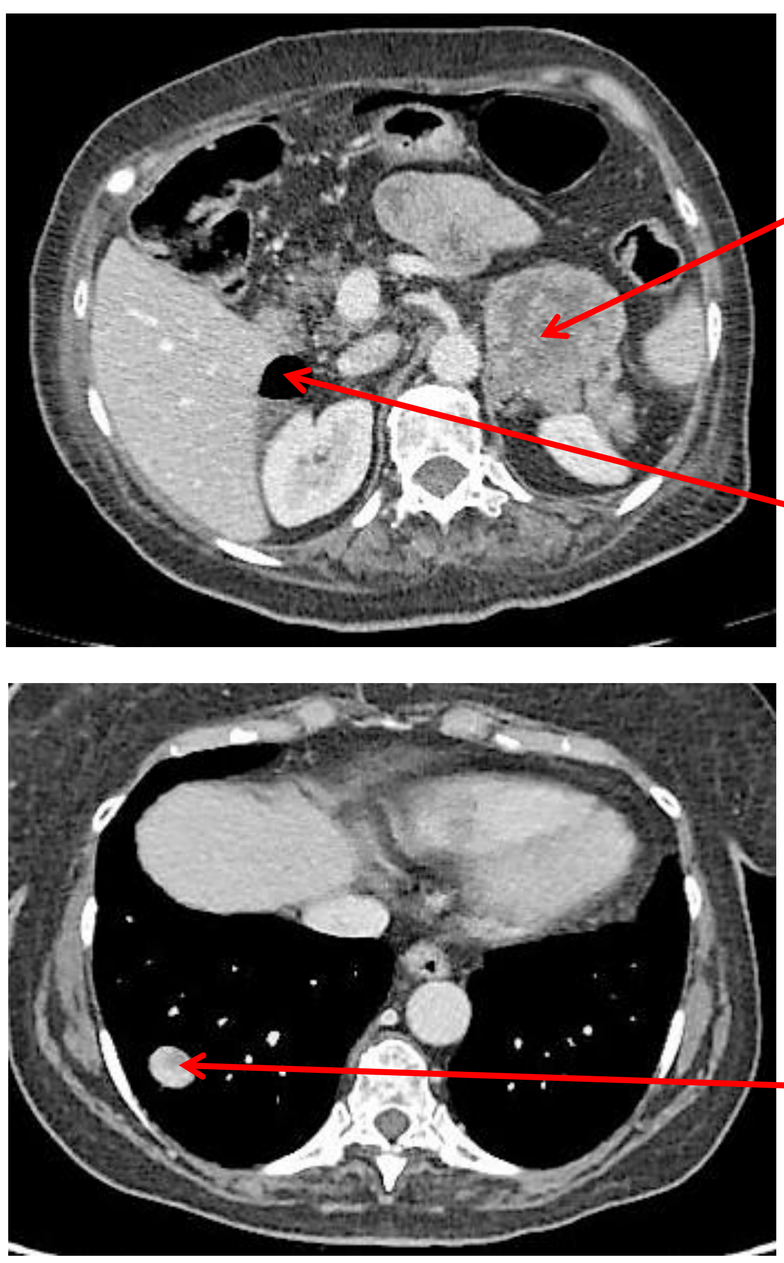


Figure 1: Cushingoid appearance: moon face, facial plethora and severe hirsutism

Hormone	Result	Range
Random Cortisol	1209nmol/L	145-619nmol/L
ACTH	<5 pg/mL	10-48 pg/mL
Total testosterone	46 nmol/L	ND-1.49nmol/L
Oestradiol	507 pmol/L	ND-118nmol/L
Progesterone	5.15 nmol/L	ND-3.2 nmol/L
17 OH progesterone	21.6 ng/mL	0.13-0.6ng/mL
Androstenedione	19.4 ng/mL	0.35-2.49ng/mL
DHEAS	23.3 umol/L	0.95-11.67umol/L

Figure 2: Biochemistry shows a cortisol and androgen co secreting tumour



Conclusion

• ACC are rapidly progressive and aggressive. Our patient developed complications of hypercortisolaemia i.e. sigmoid bowel perforation, femoral vein thrombosis, severe hypokalaemia and poor wound healing.