

Bilateral Metachronous Adrenal Adenomas Causing Cushing's Syndrome – A Case Report

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INTRODUCTION

* **Background** Information: A 39 year old lady presented with history of weight gain of about 6 kg over 6 months, uncontrolled hypertension, hair loss for 3 years and facial hair for 6 months. She also has history of occasional pedal oedema. There was no history of corticosteroid use. She had no other comorbidities. Her menstrual cycles were regular. She was married with two healthy children.

* **Significance:** The presentation was of Cushing's syndrome and we were surprised to note in her past medical history that she had undergone open left adrenalectomy for Cushing's adenoma 11 years ago (March 1991) at our own institute for proven Cushing's syndrome. She had reported an uneventful recovery from the first operation and was well until 6 months ago.

SURGICAL PROCEDURE AND OUTCOME

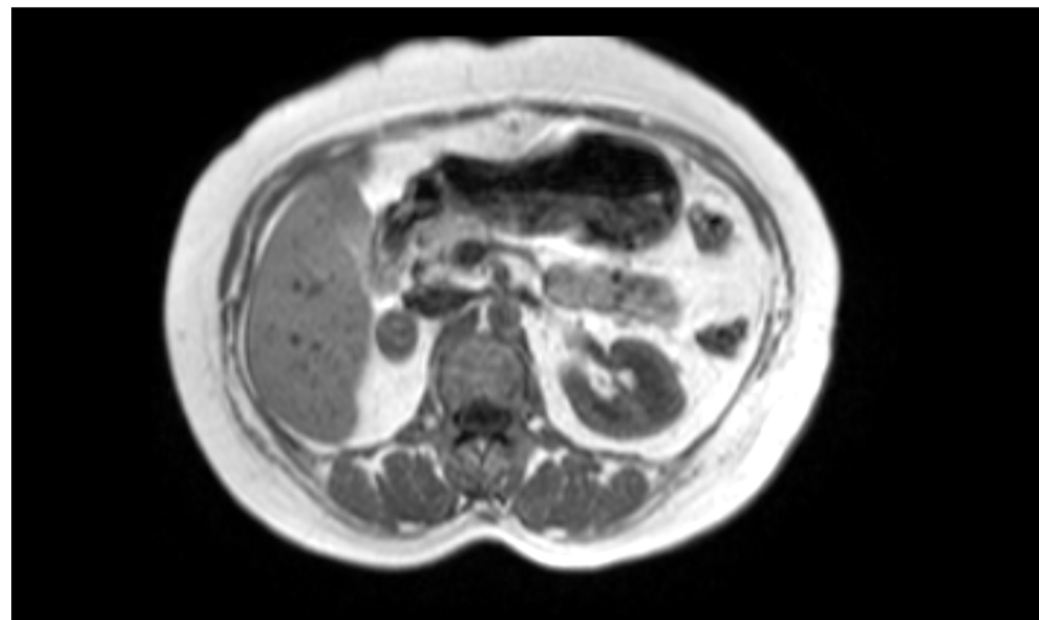
* **Description of Surgery:** Laparoscopic transperitoneal partial adrenalectomy

* **Intraoperative Findings:** 3 cm adenoma from the right adrenal gland

* **Post-Operative Management:** Hypertension managed with ACE inhibitor, tapering steroids

* **Follow-Up:** 5 years, no complication

MRI DEPICTING METACHRONOUS ADRENAL ADENOMA ON THE RIGHT SIDE



CLINICAL AND IMAGING FINDINGS

FINDING	OBSERVATION
BMI	28.3
Pulse Rate	88/min, regular
Blood Pressure	140/90 mmHg
Hirsutism	Present
Dorso-cervical Fat Pad	Prominent
Striae	Present on bilateral arms
Proximal Muscle Weakness	Present
Vibration Sense	Decreased

IMAGING/ PATHOLOGY	FINDINGS
CT Scan	Right adrenal mass
Tumor Size	2.5x1.8x1.5 cm
Gross Examination	Well encapsulated, greyish white cut surface, abutting capsule
Microscopy	Encapsulated tumor, clear cytoplasm, focal pleomorphism, no atypical mitotic figures, no capsular/vascular invasion

CONCLUSION

Summary: This case report highlights a rare instance of bilateral metachronous adrenal adenomas causing Cushing's syndrome, emphasizing the need for vigilant follow-up and comprehensive management

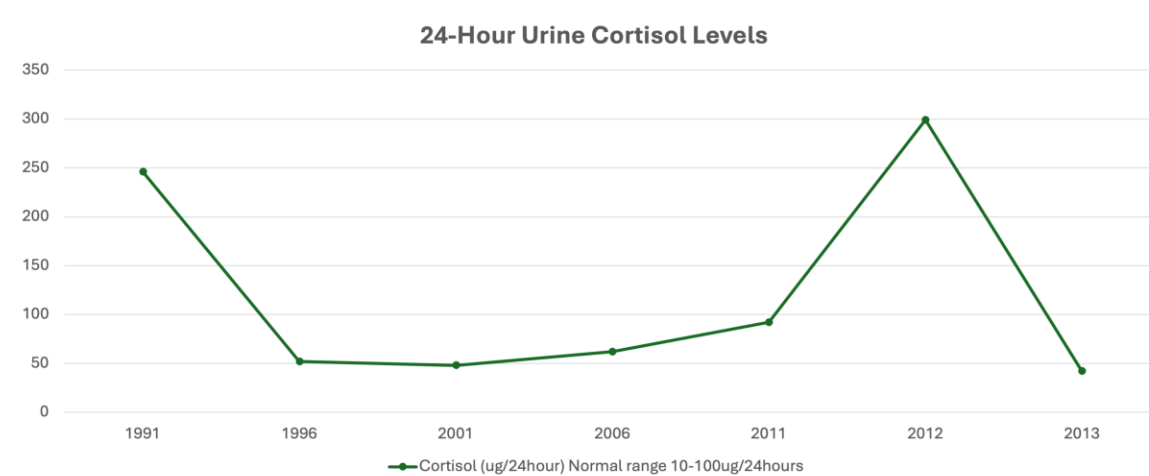
Future Directions: Need for further research and documentation of similar cases to better understand the pathology and optimal management strategies.

PATIENT DEMOGRAPHIC AND CLINICAL HISTORY

DETAIL	1991	2012
Age	18	39
Symptoms	Puffiness of face, swelling of hands and legs, hypertension, moon face, mild truncal obesity, buffalo hump, purple striae	Significant Weight gain, hypertension, hair loss, facial hair, pedal oedema
Comorbidities	nil	Bilateral breast fibroadenomas
Menstrual Cycle	Amenorrhoea 4 months	Regular
Family History	None reported	None reported
Medications	nil	No corticosteroid use

LABORATORY RESULTS

TEST	1991	2012	NORMAL RANGE
24-hour Urine Cortisol	196 ug	299 ug	10-100 ug/24 hours
Serum ACTH	<5 pg/ml	<5 pg/ml	10-60 pg/ml
Serum Cortisol (8 am)	19 ug	22 ug	CMC lab standardised



DISCUSSION

Key Points:

* Bilateral adrenal adenoma is extremely rare. A pubmed search for the keywords "bilateral adenoma Cushing's syndrome" is not reported in literature available on the internet. Hence we suggest this may be the first such reported case. Since the only other comorbidity in this patient was fibroadenoma of the breast, no syndromic association was suspected.

* Potential for this case to be the first reported instance in medical literature.

Clinical Implications:

* Importance of considering bilateral disease in recurrent Cushing's syndrome.

* Surgical approach and postoperative management.