

Examiner:

“A 46 year old woman is referred for a right adrenal mass”

Candidate:

“How was the mass diagnosed?”

E: She had a ct scan done for back pain. The CT also showed osteoporosis and a compression fracture of T9.

C: What other symptoms does she have?

E: She complains of weakness, fatigue and weight gain.

C: Did she have palpitations, headaches, diaphoresis or other symptoms of a Pheo?

E: No

C: Any increased bruising or stria?

E: She has noticed some increased bruising.

C: Any change in her facial appearance, hirsutism, or other symptoms of Cushing's disease?

E: Yes, she has noticed some increased facial fullness and hair.

C: Other symptoms? Has she had fever, infections, stones?

E: No

C: Past medical history? Illnesses, allergies, medicines, operations?

E: She has no other illnesses and no allergies. She takes ibuprophen for her back pain. She has had two C sections and a tubal ligation.

C: I would do a thorough review of systems... any other constitutional symptoms, eyes, ears, nose, and throat?

E: Her review of systems is negative.

C: Anything pertinent in her social history or family history?

E: No

C: I would do a complete history and physical, starting with general appearance, vital signs?

E: She is an overweight woman with a round face. Her blood pressure is 140/90 and other vital signs are normal. She has bruises on her arms.

C: ENT, heart and lungs?

E: Normal.

C: Back, abdominal exam?... Is the mass palpable?

E: She has tenderness of the thoracic spine, no abdominal mass. The remainder of the exam is noncontributory.

C: I would want to review her CT and would begin with basic lab studies including a urinalysis, CBC, chem panel...

E: These are normal. Here is her CT:



C: The CT shows a large right adrenal mass. This looks like it will need to come out. It looks like an adrenal carcinoma, but I would want to be sure it is not a pheo so I would look at serum and urine catecholamines as well as cortisol levels.

E: Her catecholamines are normal. Serum and urine cortisol levels are elevated.

C: We could do a dexamethasone suppression test, but with a tumor this size and with this appearance I think it will need to come out regardless. I would normally have the endocrinologist in our group consult on a case line this.

E: Dexamethasone did not suppress her excess cortisol production. What would you recommend?

C: I would do a metastatic workup. If it is localized, laparoscopic adrenalectomy is generally the treatment of choice now. I do not personally do laparoscopic adrenalectomy and with a tumor this size I think open resection would be preferred. However, I would discuss the options with her.

E: And?

C: I would recommend open
adrenalectomy.

E: How would you do it?

C: I would get informed consent, pre-op labs, type and cross, chest film and EKG. She would need a steroid prep. I would use an anterior subcostal incision. After reflecting the right colon, I would dissect out the adrenal and carefully divide the adrenal vein.

E: In dissecting the adrenal off the vena cava the adrenal vein is torn from the cava. What would you do?

C: I would apply compression with a lap pad and then, if necessary, with a sponge stick. I would confirm that I had adequate exposure, light and suction, and then clamp the avulsed adrenal vein with an Allis. I would oversew it with 5-0 Prolene.

E: In dissecting off the adrenal inferiorly the tumor appears to invade the upper pole of the kidney. What would you do?

C: She has a normal contralateral kidney and normal renal function. Complete excision is key to cure, so I would go ahead and remove the kidney with the specimen. I would have consented her for this preoperatively.

E: Why not do a partial nephrectomy?

C: If adequate margins could be assured, partial nephrectomy would be an acceptable option. It would depend on the findings at surgery, but it would be a more difficult procedure that could complicate her course.

E: How will you follow her?

C: I would see her with her pathology results and assuming our diagnosis of adrenocortical carcinoma is correct I would follow her with chest films and CT scans for recurrence.

E: She returns 9 months later with a chest film showing three nodules.

C: I would check her cortisol levels again, but this is most likely metastatic adrenal carcinoma. I would refer her to our medical oncologist.

E: What treatments would be used?

C: Mitotane remains the drug of choice,
and responses are also seen with
cisplatin combinations.

E: O.K. Our next patient is a newborn
with ambiguous genitalia...

How Did She Do?

Fatal Errors:	None
Data collection:	Satisfactory
Knowledge:	Satisfactory
Decision making:	Satisfactory
Communication:	Satisfactory
Ethics/Profesionalism:	Satisfactory

Potential Traps/Fatal Errors

Lap adrenalectomy is the current Rx of choice: failure to offer/discuss is an error!

LACK OF LAP (or other) EXPERIENCE is *NOT* grounds for failure!

Failure to inform patients of their options potentially *is*.

You should know the general principles of laparoscopy and other procedures that you do not do, but

**DO NOT SAY YOU WOULD DO
SOMETHING THAT YOU
WOULD NOT DO!**

Careful

Do not jump to the diagnosis or treatment

“Adrenal carcinoma;” “Needs to come out”

Nephrectomy without consent?

Candidate did not summarize: Dx/ impression
based on Hx, PE, Labs.

Present options, generally even those you would
not recommend, stating **why** you would
recommend ...