

Incidentaloma of the right Adrenal Gland in pregnant women

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“ Incidentalomas “ or “ Adrenaloma “ are adrenal masses found incidentally by undirected abdominal imaging, during operative procedures for unrelated causes or at autopsy. The use of imaging procedures, especially ultrasonography and CT, for many suspected intra abdominal problems often results in the discovery of apparently symptomatic adrenal masses.

We report a case of 20 years old Iraqi women female (primary gravid) who had a right adrenal incidentaloma and after right adrenalectomy, it was found to be primary adrenocortical cancer.

CASE HISTORY

A 20- year old Iraqi female patient presented with one-month history of recurrent attacks of right flank pain associated with burning micturation. There were no previous similar symptoms. She was primigravida in her first trimester. There was no family history of adrenal tumors or other endocrine tumors. On examination, the patient looked well and healthy, normal vital signs and physical examination.

The patient blood investigation (complete blood count, renal function test, liver function test, electrolytes, blood sugar) were within normal limits. Abdominal sonography demonstrated a well-defined, hypo echoic, solid mass with multiple small areas of cystic changes measures (150mm x 90mm) at right suprarenal area with thin capsule separated from the kidney. T2-weighted magnetic resonance (MRI) shows big right suprarenal mass, separated from the kidney by well formal capsule and compressing the I.V.C partially (fig1). Contrast cannot be given because of its hazard to pregnant patient. Serum cortisol was normal and urinary measurement of vanillylmandelic acid was normal. Chest x-ray and abdominal computed tomography (CT) was abundant because of her pregnancy.

Right thoracoabdominal adrenalectomy was performed, although the adhesions of the tumor were not sever, the tumor was carefully dissected. No nodal or vascular involvement was found. Postoperatively, the patient went very well. Gross examination of the specimen shows one piece of tissue, globular, brown, irregular of (13 x 12 x 2cm). Cross section shows solid, brown with hemorrhagic areas, weight = 280gr.

Discussion

Histopathology showed adrenocortical carcinoma with oncocytic variant. The tumor is biologically malignant as the weight is more than 50gm fig(2). Increasing use of sophisticated imaging modalities such as ultrasound, CT and MRI and ever increasing resolution that both software and hardware are achieving, has meant that the number of incidentally discovered adrenal masses has increased over the past 10 years.(1)

The most common cause of non-functioning adrenal masses is cortical adenoma, followed in order by metastases to the adrenals, myelolipomas, ganglioneuroma, adrenal cysts and a multitude of other rare conditions.(2)

The work up should include a complete history and physical examination with specific reference to a history of previous malignancy and signs and symptoms of Cushing symptoms. (3) Blood pressure of virilizing or feminizing signs should be detected.

All patients of incidentaloma should screen for serum cortisol or 24h.urine cortisol excretion and measurement of VMA or plasma – free metanephrines. Patient with hypertension should also undergo measurement of serum potassium and plasma aldosteron concentration/ plasma rennin activity ratio.(4)

Surgery should be considered in all patients with functional adrenal cortical tumors that are clinically and subclinically apparent. All patients with biochemical evidence of pheochromocytoma should undergo surgery.(4)

A unilateral nonfunctioning adrenal mass greater than 4cm in diameter is an indication for adrenalectomy. The patient with amass smaller than 4cm in diameter should undergo repeat CT/ MRI 4 – 6 months after previous examination. An increase in size of mass is an indication of adrenalectomy.(5)

Adrenal carcinoma is one of the rarest tumors in humans, accounting for only 0.2% of all tumors and is classified as either functioning or nonfunctioning.(6) Incidental adrenocortical carcinoma presents 5% of overall adrenal incidentalomas.(3) Accurate weights of adrenal cortical neoplasma are important. Although tumor mass cannot be used as the sole criterion for malignancy, adrenal cortical neoplasma weighing less than 50gm are almost always benign, whereas weight of malignant tumor is usually greater than 100gm. (7)

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The following are the interesting points in our case

- 1- Its rare to discover Adrenal tumor during pregnancy.(8)
- 2- The teratogenic effect of the diagnostic radiological investigations. The MRI investigation was safe but without using contrast.
- 3- The way of the treatment whether to act surgically or conservatively was based on the size and the function of the tumor.
- 4- The risk of using chemotherapy for Adrenocortical carcinoma during pregnancy forced the patient to refuse the treatment until the delivery..

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