Metastatic Choriocarcinoma Presenting as a Renal Mass:

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ABSTRACT

Choriocarcinoma is an aggressive tumour arising as a malignant transformation of the gestational trophoblastic disease or rarely from the germ cells in the ovary. Renal involvement due to choriocarcinoma is rare. We report here one such case.

A 32 year old married woman presented with abdominal pain and vomiting of 15 days duration. She gave history of abortion followed by bilateral oophorectomy 3 years back. Further details were not available. CT Scan of the abdomen showed a renal mass which was reported as a poorly differentiated carcinoma on fine needle aspiration cytology (FNAC). She underwent nephrectomy but patient succumbed within 2 weeks of surgery. Histopathology of the renal tumour revealed a choriocarcinoma, immuno-histochemistry for β-HCG and cytokeratin were positive. She also had elevated serum β-HCG done postoperatively.

Choriocarcinoma must be considered in the differential diagnosis of a renal mass in a young female patient.

INTRODUCTION

Choriocarcinoma is a rare tumour arising from gestational trophoblastic tissue. The disease spreads hematogenously to lungs, brain, liver and rarely to kidney.
causing intussusception which was resected. A few nodular metastases in the Liver were also seen. The kidney was removed as a palliative procedure. A provisional diagnosis of renal cell carcinoma was made. The patient’s condition however deteriorated post operative and she finally succumbed on the second week of surgery, possibly due to internal hemorrhage. The specimen of kidney measured 3.5x8.5x6.5cms and on cut section displayed a hemorrhagic and necrotic tumor mass in the kidney with a thin rim of normal kidney in the lower pole (Fig. 2). Histopathological examination of the sections from the kidney mass showed bizarre cytотrophoblasts and syncytiotrophoblastic cells with extensive intervening hemorrhage and necrosis (Fig. 3) immunohistochemical staining for beta HCG (Fig. 4) and cytokeratin were positive and negative staining for desmin. A diagnosis of choriocarcinoma was made. Postoperative serum β-HCG was elevated (199.5u/l). Similar histological features were observed in the sections from small intestine and para-aortic lymph node.

**COMMENTS**

Choriocarcinoma of the Kidney, primary or metastatic is rare. In a relatively young woman with past history of abortion and clinical presentation of gross haematuria, menstrual irregularity and atypical renal tumour with other sites of metastasis such as lungs, liver, intestine, metastatic choriocarcinoma should be suspected. In female patients, majority of the reported case of choriocarcinoma of the kidneys are metastatic lesion from previous gestational choriocarcinoma, mostly associated with disseminated disease and may be detected at
early presentation. Occasionally a patient may present with renal and pulmonary metastatic choriocarcinoma. This malignancy is known to undergo spontaneous regression of the primary tumour, which infarce of metastasis may obscure the primary tumour site. In one study, two patients presented with profound haematuria and renal enlargement secondary to metastatic choriocarcinoma in the absence of primary malignant foci.

Histologically the choriocarcinoma is characterized by a dual cell population composed of cytotrophoblastic cells with uniform round nuclei, clear cytoplasm, and prominent nucleoli admixed with large, multinucleated syncytiotrophoblastic cells with bizarre nuclei, and abundant eosinophilic cytoplasm. Immunohistochemically, these tumours express strong keratin and \( \beta \)-HCG postivity.

If the index of suspicion is high based on radiological and clinical features, immunocytochemical tests can be done on FNA smears. A core needle biopsy is another alternative before a radical surgery is contemplated. However a renal cell carcinoma of the Kidney may have a varied presentation and so a preoperative confirmatory diagnosis may not always be possible. Choriocarcinoma responds well to chemotherapy based on cisplatin, bleomycin with etoposide or vinblastin. Metastatic choriocarcinoma is also classified by the W.H.O as low, medium and high risk. This scoring system readily identifies those patients who fall in ultra high risk category and need to be treated with dose intensified poly-chemotherapy protocols for better results. The chemotherapeutic regimen (EMA-CO) based on etoposide, methotrexate, actinomycin-D, cyclophosphamide, vincristine has been the standard for high risk metastatic choriocarcinomas, but a dose intensified regimen (EMA-CE), in which cisplatin and etoposide are substituted for vincristine and cyclophosphamide of the (EMA-CO) regimen, has shown to have some added benefits.

CONCLUSION
Renal involvement in gestational choriocarcinoma is known, albeit rare. A high-index of suspicion is important to diagnose these cases early and preoperatively. Surgery may be associated with significant morbidity and mortality.

REFERENCES: