Palpable Breast Lesion As Initial Manifestation Of Disseminated Renal Cell Carcinoma

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Citation

Abstract
A rare case of renal cell carcinoma presenting as a breast lump in a 72 years old woman without history of malignancy is detailed in this report. Excisional biopsy of the lesion revealed the presence of metastasis from a previous silent renal adenocarcinoma. An abdominal CT scan showed a right renal mass and a smaller omental mass and the histology performed after right nephrectomy and partial omentectomy confirmed the diagnosis of stage IV renal cell carcinoma. The patient was referred to an oncology department and she remains in good condition 5 months after the operation.

INTRODUCTION
Breast is an unusual site for metastatic tumors and renal cell carcinoma is the fifth most common source after melanoma, lymphoma, lung and ovarian carcinoma. Medline search revealed only few cases of silent renal cell carcinoma presenting as a breast lesion whereas the majority of them appeared as metastasis from an already known renal adenocarcinoma. The appropriate treatment in these cases remains controversial.

A 72 year old woman presented at the outpatient breast clinic because of a nodule of the right breast discovered during self-examination. The lesion was palpable at the upper outer quadrant of the right breast without any other breast or axillary lesions. Apart from mild obesity and a known history of hypertension treated with a diuretic and atrial fibrillation her physical examination was unremarkable for other comorbidities. She had a positive family history of malignancy. More specifically one of her brothers died at the age of 77 from renal adenocarcinoma but she was unaware of malignancies at the rest of her first degree relatives. Mammography showed a well-circumscribed tumor without microcalcifications (figure1).
An excisional biopsy was performed and a brown-gray well demarcated tumor with a diameter of approximately 2 cm was send to the pathology reveling istochemical and immunoistochemical features more compatible to renal cell carcinoma (figure 2).

The tumor was diagnosed as a metastasis most likely from a primary renal cell carcinoma. U/S of the abdomen revealed a solid lesion of the lower part of the right kidney. Abdominal CT scan, performed later on demonstrated a round lesion at the lower part of the right kidney with soft tissues’ density and diameter of approximately 6.5 cm. A second nodular lesion located at the omentum with a diameter of 3cm and soft tissues’ density was also found (figure 3).

Few days later a laparotomy exploration revealed an increase of the size of the right kidney and an omental mass near by.
the ascending colon which was probably the second lesion of
the CT. Right nephrectomy (figure 4) and partial
omentectomy (figure 5) were performed.

**Figure 4**
Figure 4: Infiltration by the tumor of right renal and
perirenal adipose tissue is obvious

**Figure 5**
Figure 5: Metastatic omental brown-red mass (2×3 cm)

The pathology report confirmed the histopathological
findings of the breast biopsy. During immediately post
operative period the patient suffered from atrial fibrillation
of a short duration and few days later she was discharged
and referred to an oncological department for further
evaluation and treatment. Ten months after the operation the
patients remains in good condition.

**DISCUSSION**
Renal adenocarcinoma accounts for about 3-5% of all
tumors in adults. Gross or microscopic hematuria is the most
common manifestation. Other presentations is due to
paraneoplastic syndromes like hypercalcemia,
erthrocytosis, hypertension and fever of unknown origin or
due to metastases e.g. bone pain, respiratory distress or skin
nodules. Breast is an uncommon site of metastasis and only
few cases have been reported in the literature especially as
the first manifestation of the disease. Renal cell carcinoma
can also be revealed as incidental mass in U/S or CT scan.
CT scan, especially with the use of iodinated contrast
medium, is the tool of choice for diagnosis and staging.
Prognosis and treatment is relevant to the stage of the
disease. Patients with stage IV renal cancer have five years
survival rates of 0-5% and the treatment of choice remains
controversial. Medroxyprogesterone, vinblastine and
immunotherapy with interleukin-2 and interferon beta have
shown up to 30% response rate. Surgical therapy although
necessary at the early stages has not been associated with
improved survival rates in patients with stage IV disease.
Lately joint surgical removal of both the primary and the
metastatic lesion in patients with pulmonary metastases has
shown an improvement in survival1. In our case
lumpectomy, nephrectomy and omentectomy have certainly
reduced the tumor size but it is unknown if is going to add in
survival.

Surgeons who perform excisional biopsies of breast lesions
should suspect the possibility of metastasis especially in
cases of well-circumscribed tumors without
microcalcifications in mammography and report their
finding to the pathologists. Clinical information is useful and
sometimes vital for the pathologists to differentiate clear cell
tumors of the breast. The differential diagnosis includes
glycogen rich clear cell breast carcinoma, metastatic clear
cell carcinoma particularly of renal origin, lipid rich
carcinoma, histiocytoid carcinoma and others rare tumors1.
Immunohisthochemistry is a useful tool in the differential
diagnosis1. Finally oncologists should have in mind the
possibility of breast metastases while staging renal
adenocarcinoma.

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**References**
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