

Metastasis to the breast of a renal carcinoma: a clinical case

A. FORTE, M.I. PERONACE, L.S. GALLINARO, A. BERTAGNI, V. PRECE, G. MONTESANO, P. PALUMBO, A.G. NASTI

Fourth Surgical Department, "La Sapienza" University - Rome (Italy)

Abstract. – The breast is an unusual site for metastatic disease, and generally the lesion appears some times after the diagnosis of the primary malignancy. Authors report a case of a breast metastasis from a hypernephroma, six years after nephrectomy.

Key Words:

Breast metastasis, Secondary kidney neoplasms.

Introduction

The renal adenocarcinoma displays an extremely variable and unpredictable course¹ both in its clinical development and in its metastasis. The authors are reporting here a case of metastasis to the right breast of a kidney carcinoma diagnosed and treated surgically six years previously. The breast metastasis had at first been considered to be a primitive neoplastic lesion of the breast, and only after a histological examination was the secondary nature of the lesion grasped.

Clinical Case

A woman of 71 years hospitalized for the first time in our division of the 4th Surgical Clinic complaining the presence of a discrete lump in the right breast. Six years previously she had undergone left nephrectomy for a renal clear cell carcinoma (Figure 1). On examination, she had a painless, smooth mass of mass about 10 × 8 cm in diameter occupying the QSI and the QII of the right breast not fixed to the skin but adhering to the deep structure. The mammogram showed the pres-

ence in the right QSI of a multilobed formation of a maximum diameter of nine centimeters with accentuation of the vascular circulation (Figure 2). The thoracic X-ray, the abdominal echogram and the bone scintigram brought out no metastatic lesions.

A surgical operation was therefore decided upon, with the diagnosis of breast carcinoma, and a radical mastectomy were performed. Macroscopic examination of the specimen showed, nearby the fascial margin, a rounded neof ormation of a maximum diameter of six cm, white to greyish in color, with a sizeable necrotic-hemorrhagic area. Histologically, the presence of clear polyhedral cells with net limits, PAS positive, arranged in solid cords and containing a lipidic material (coloration with Sudan IV) made it possible to formulate the diagnosis of clear-cell carcinoma resulting from metastasis of a primitive renal carcinoma (Figure 3). There were no metastatic deposits in the axillary lymph nodes.

Discussion

From a review of the literature it appears that the breast is an unusual site for metastatic deposits. In 80% of cases it is the female sex that is struck. Both glands can be equally affected and in some (17% of cases) the lesions can be bilateral. The primitive neoplasms that most frequently metastasize to the breast (after having excluded the case of the contralateral breast and the lymphoma) are in order of frequency the malignant melanoma, the reticulosarcoma, the lung carcinoma (especially in the oat-cell varieties), and, for the male sex, prostate carcinoma.

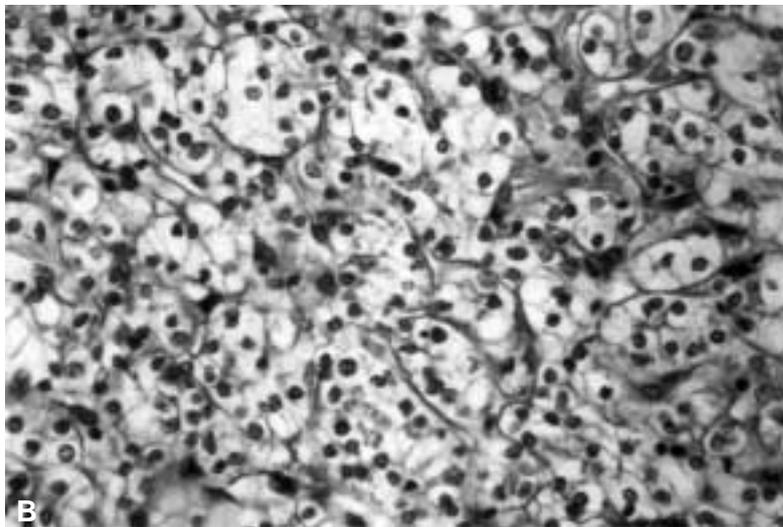
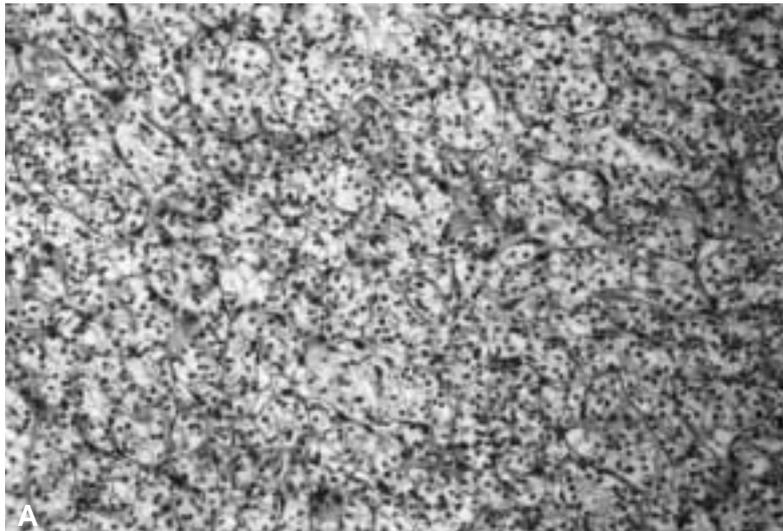


Figure 1. Histological sample from the left kidney.

A. 10x: characteristic solid cord structure, separated by scant vascular connective stroma.

B. 25x: detail under stronger magnification of the preceding: cell elements of polyhedral form, net cell limits, vacuolized cytoplasm, rare cell atypias.

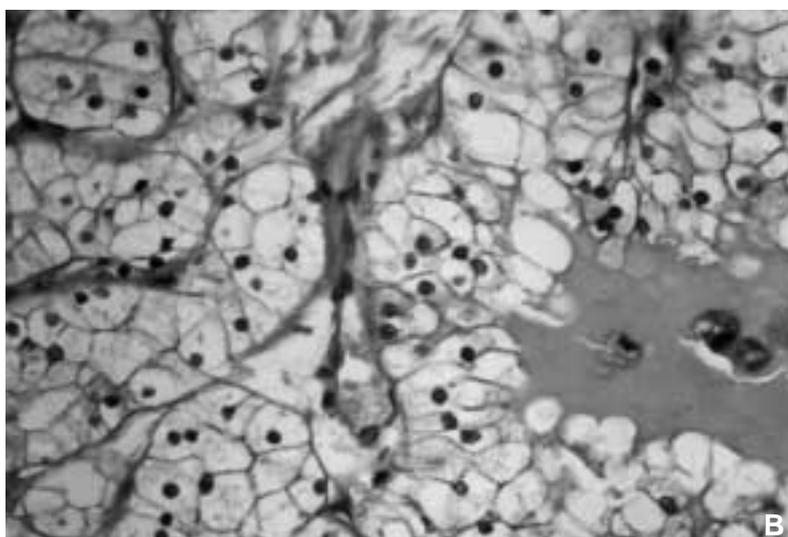
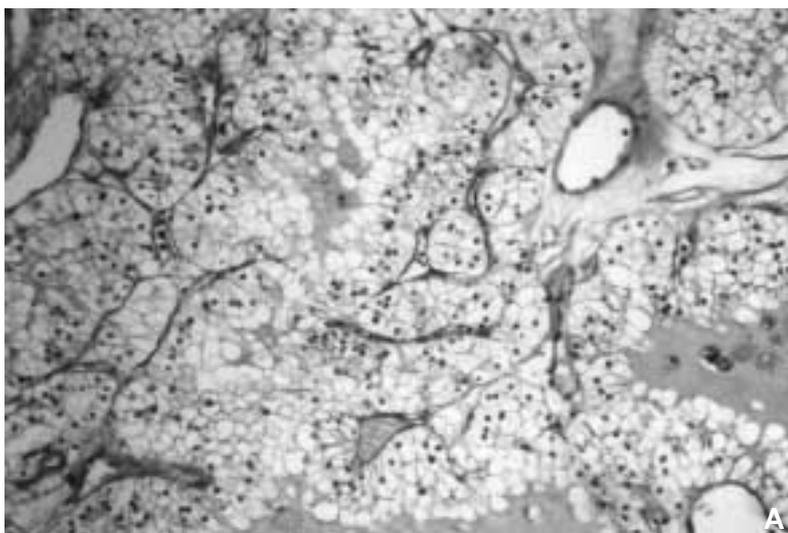


Figure 2. Mammograms. Voluminous multilobed formation of maximum diameter 9 cm with accentuation of the surrounding vascular circulation.

Figure 3. Histological sample from breast.

A. 10×: “clear” cells arranged in apparently solid cords separated by vessels at times of sinewave structure, on the right cystic glandular structures with accumulation of amorphous material in the lumen.

B. 25×: detail under stronger magnification of the preceding sample: to be noted are the voluminous “clear” cells, with cytoplasm membrane well in evidence and the absence of atypes.



Only in three percent of the cases is the primitive tumor of renal origin⁸. Most of the cases in which metastasis to the breast develops at more than ten years from the nephrectomy are presented in solitary form; as against this, most of the patients that develop multiple metastases die within ten years. As the result of these facts some authors assert that a solitary metastasis after some time has passed is rare, but not necessarily it is a sign of the spread of the disease or the harbinger of death¹⁷. The site most frequently affected is the QSI. Usually these lesions are displayed as a non-painful swelling and generally in the mammogram no microcalcifications show up. Adenocarcinoma of the kidneys seldom metastasizes

to the breasts and only a few cases are reported in the literature^{6-10,14-17}; in some of them the location in the breast was the first sign of disease. Breast repetitions have been described even after eighteen years have passed from the diagnosis of kidney adenocarcinoma.

The breast location can be explained by the spread of neoplastic cells from the renal vein into the IVC and then through the pulmonary circulation, then reaching the arterial circulation to then be able to spread through the whole organism.

The clinical case presented falls among those rare cases of breast metastasis from renal hypernephroma, a type of tumor that displays a high metastasis potential.

In our case, the mammographic finding of an absence of microcalcifications and the multilobed form, in contrast with the dimensions of the mass and its being fixed at the deep levels objectively found, let it be supposed that at issue was a primitive lesion of the breast.

It is important to be able to recognize these lesions for at least two reasons: they can represent the first manifestation of a primitive lesion otherwise improperly recognized, and in the second place to obviate radical surgical operations in the presence of a widespread disease.

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