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CLINICOPATHOLOGIC FEATURES AND PROGNOSIS IN OCCULT BREAST CARCINOMA (A REPORT OF NINE CASES)

Shi Yini 施旖旎　Li Jiyou 李吉友　He Luowen 何洛文　Chen Yong 陈勇

Beijing Cancer Hospital. Beijing, 100036

In this report, nine cases of axillary metastases from clinically occult breast cancer were analysed with the clinicopathologic features and prognosis. All cases had histologic evidence of metastatic nodes compatible with breast carcinoma, and were followed-up from 3 to 6 yeras.

Conclusions. The disease occurs in approximately 0.6% of all breast cancer diagnosed in our hospital. The most common pattern of histologic findings in the axillary lymph node in cases of occult breast carcinoma was the infiltration of relative undifferentiated cells with clear or granular pink cytoplasm.

The number of metastatic nodes and metastatic tumor size seemed to be related to the prognosis. Whether or nor a primary tumor was found in the breast seemed not to be related to the prognosis.

Key words: Occult breast carcinoma, Axillary metastases, Prognosis

Occult breast carcinoma presenting with axillary metastases and no clinically apparent primary tumor, negative mammograms, no evidence of tumor, elsewhere, is an uncommon form of stage II breast cancer. The purpose of this report is to exploreof tumor, elsewhere, is an uncommon form of stage II breast cancer. The purpose of this report is to explore the clinicopathologic features and prognosis of this breast cancer.

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MATERIALS, METHODS AND RESULTS

Clinical Data

A total of 1523 women with pathologically proven primary breast cancer were treated in our hospital between january 1980 and December 1991. For all cases follow-up status were obtained. Of the 1523 patients, nine with occult breast cancer were reviewed and studied retrospectively.

All 9 patients initially presented with the following: 1) Axillary metastases of an adenocarcinoma; 2) Clinically normal breast examinations; 3) Negative mammograms; and 4) no other clinical evidence of a primary tumor. To rule an extramammary primary tumor or distant matastases, patients werte studied preoperatively by a variety of techniques including chest X-ray, endoscopy, ultrasonic waves, abdominal CT scan. Table 1 summarizes the major clinical findings in the nine patients.

Results

The histopathologic findings in the 9 patients are shown in Table 2.

Table 1. Clinical data in nine patients

Patient	Age(years)	Axillary metastases node				mammogram		Breast	Operation		
		laterality		time	size						breast
		left	right	month	(cm)	first	second	palpation	Axillary biopsy		operation
1	37	(+)		6	4×4	(−)	(±)	(−)	(+)	(+)	Modified radical mastectomy
2	49	(+)		2	4×4	(±)		(−)	(+)		same above
3	40		(+)	1	2×2	(−)		(−)	(+)		same above
4	33	(+)		6	1.5×1.5	(−)		(−)	(+)		same above
5	44		(+)	6	5×5	(−)		(−)	(+)		same above
6	40	(+)		6	2×2	(−)		(−)	(+)		same above
7	54	(+)		1	2×2	(±)		(−)	(+)		same above
8	53		(+)	2	1×1	(−)		(−)	(+)		same above
9	60		(+)	10	1.4×1.2	(−)		(−)	(+)		same above

Table 2. Histopathologic findings in nine patients

Patient	Primary tumor of breast		Histological findings		Histologivcal grade			Nodes
	findings	no findings	Axillary node	breast tumor	I	II	III	positive
1	microscopic foci		poorly differ Adenocarcinoma	Atypical medullary carcinoma			(+)	4/15
2		(−)	simple carcinoma				(+)	16/16
3		(−)	simple carcinoma				(+)	1/17
4		(−)	simple carcinoma				(+)	5/7
5	small foci		simple carcinoma	invasive lobular carcinoma	(+)			19/20
6		(−)	middle-poorly differAdeno-carcinoma				(+)	1/12
7	φ 0.8 cm		simple carcinoma invasive ductal	invasive ductal carcinoma	(+)			1/12
8	φ 0.5 cm		poorly differ Adnocarcinoma	medullary carcinoma	(+)			1/12
9		(−)	poorly differ Adnocarcinoma				(+)	1/18

Biopsy spcimens in seven patients were subjected to hormone receptor analysis by dextran-coated charcoal (DCC) technique. Estrogen and progesterone receptors were positive in three patients, and negative in two patients. Two patients were positive for estrogen and negative for progestorone receptors.

After operation patients received adjuvant therapy: chemotherapy and/or radiotherapy or endocrine-therapy. Follow-up status are shown in table 3.

As can be seen in above tables, the nine patients of occult breast carcinoma were admitted to hospital for a single enlarged axillary metastatic node. The

range of age at diagnosis was 37 to 60 years, five cases in left, four in right, palpation in the ipsilateral breast was negative. Mammogram was negative in 6, suspicions in 3. In patient 1, mammogram was negative in first, suspicion in second; and ipsilateral axillary metastatic node twice appeared in a four months' interval, after biopsy that was poorly differ adnocarcinoma; axillary lymph node metastses

Table 3. Follow-up status in nine patients

patient	Death			alive		
	operation date		death date	operation date		follow-up date
1	1980. 6	—	1981. 6			
2	1984. 8	—	1985. 2			
3				1985. 6	—	1992. 8
4				1985. 10	—	1991.
5	1988. 1	—	1989. 7			
6				1988. 12		1994
7				1990. 3	—	1994
8				1991. 3	—	1994
9				1990. 5		1994

were composed of sheels of large cell with clear cytoplasm; this cell type and pattern was resembling renal cell carcinoma (Figure 1,2). But in patient 7, the axillary metastases appearance was more typical of mammary carcinoma, such as a nesting and trabecular growth with a scirrhous reaction (Figure 3,4).

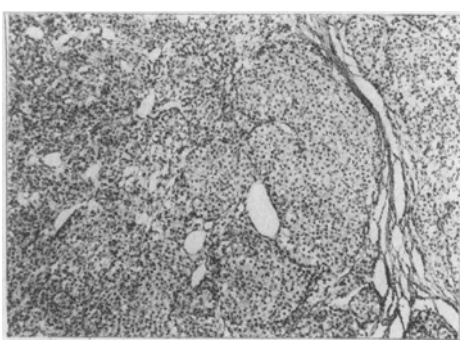

Fig 1. HE× 100

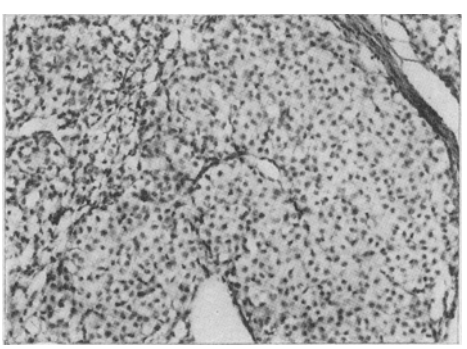

Fig 2. HE× 200

Axillary lymph node metastases were composed of sheels of large cell with clear cytoplasm, this cell type and pattern was resembling renal cell carcinoma (Figure 1,2).

Since the cell type and pattern of axillary metastases in patient one was resembling renal cell carcinoma, who was studied by variety of techniques including abdominal CT scan, retroperitoneal pneumography, and was suspected that the primary tumor was from left kidney, so underwent an

pneumography, and was suspected that the primary tumor was from left kidney, so underwent an exploration in left kidney, but it was norma in left kidney and adrenal gland. Finally the patient underwent modified radical mastectomy and cancer foci was found under microscope.

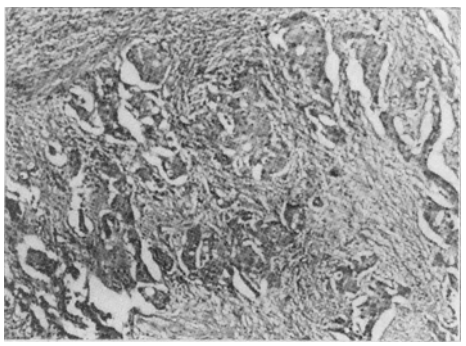

Fig 3. HE X 200

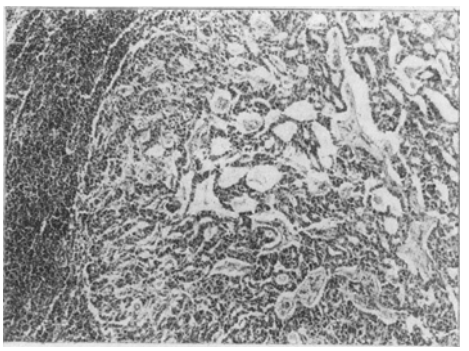

Fig 4. HE× 100

Axillary metastases appearance was more typical of mammary carcinoma, such as a nesting and trabecular growth with a scirrhous reaction (Figure 3,4)

After operation of 9 patients, carcinoma was found in the ipsilateral breast for four cases, not found for five cases despite careful pathologic examination. 1 — 1.5 year later, case 1,2,5 died of systemic metastases; other six patients are alive after 6-year.

DISCUSSION

Incidence

The disease occurs in approximately 1% of all breast cancers by several reports.[1] In this report, occult breast carcinoma occurs in 9/1523 cases, i.e., 0.6% of all breast cancers.

Clinicopathologic Features

The metastatic enlargement of axillary nodes may be the first sign of clinically occult corcinoma of the breast. The size of primary tumor in breast is very small and unpalpable in clinic. After follow-up, either the primary tumor in breast is found or never found. The most common pattern of histologic findings in the axillary metastases nodes in cases of occult breast caricnoma was the infiltration by relatively poorly differentiated cells. Haupt[2] described the histologic patterns of axillary metastases nodes such as following: 1) Sheets of large, apocrine-like cells, sometimes the cells having clear cytoplasm that was sometimes suggestive of metastatic renal cell carcinoma (especially when cytoplasmic clearing was prominent). In this paper, patient 1 was so; 2) more typical of mammary carcinoma pattern; 3) mixed pattern of above two patterns.

Hormone Receptors

It were evaluable on axillary metastases in 7 cases, that not only may provide information regarding the identify of the primary tumor but also may be the only opportunity for receptor analysis. It was favorable for endocrine therapy. Often after sectioning the excised breast tissue either the primary tumor is never found or the quantity of tumor is insufficient for a quantitative hormone receptor analysis. However extrogen receptors have been demonstrated in several other tumors, including carcinoma of the colon, overy, endometrium, and kidney, and in malignant melanoma. We feel that pathologic assessment of the histologic pattern and careful clinical examination can exclude the possibility of other primary tumors.

Prognosis

Authors[1,3] concluded that these unusual stage II

patients have a prognosis similar to and possibly even better than that of stage II patients who present with a palpable breast carcinoma. In this report, three patients died of systemic metastatic carcinoma who with large axillary metastasis node and four or more positive lymph nodes, in which, primary breast tumor was found for 2 cases, was not found for 1 case. Other 6 patients alive, who with small axillary metastasis node and less positive lumph node, in which primary breast tumor was found for 2 cases, was not found for 4 cases. So, the number of metastatic lymph nodes and size of metastatic node seemed to be related to the prognosis, whether or not primary tumor was found in breast seemed not to be related to the prognosis.

REFERENCES

1. Merson M, Andreola S, Galimberti V, et al. Breast Carcinoma Presenting As Axillary Metastases without Evidence of A Primary Tumor. Cancer 1992; 70: 504.
2. Haupt HM, Rosen PP, Kinne DW. Breast Carcinoma Presenting with Axillary Lymph Node Metastases. An Analysis of Specific Histopathologic Features. Am J Surg Pathol 1985; 9: 165.
3. Rosen PP and Kimmel M. Occult Breast Carcinoma Presenting with Axillary Lymph Node Metastases: A Follow-up Study of 48 Patients. Hum Pathol 1990; 21: 518.