

A RARE CASE OF CARCINOMA BREAST PRESENTING WITH INGUINAL LYMPH NODE METASTASIS

General Surgery

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ABSTRACT

Carcinoma of breast is one of the most common malignancies arising in females. Most common sites of metastasis were axillary lymph nodes, vertebral bones, lungs, brain and liver. Metastasis to inguinal lymph nodes is however a rare occurrence. Only very few cases were reported in literature.

We report here a case of carcinoma of right breast with right inguinal lymph node metastasis and the way we managed the case.

KEYWORDS

Carcinoma breast, inguinal lymph node metastasis, lymphatic pathway

INTRODUCTION

Metastatic carcinoma of breast displays varied clinicopathological features. However spread to inguinal lymph nodes is a rare phenomenon. Here are a few examples of case reports by some authors.

Baba M et al described a 58 year old women with T1 right carcinoma of breast with right inguinal lymph node secondaries.(1)

Jebbin NJ et al reported two cases of carcinoma breast with inguinal lymph node metastasis in Nigerian women. (2)

Kilicksiz S et al reported a breast carcinoma with isolated inguinal lymph node secondaries. (3)

After extensive review of available literature these are the only few available case reports which signifies the rarity of occurrence of inguinal lymph node secondaries in a case of carcinoma breast.

CASE REPORT

A 74 year old postmenopausal lady came with complaints of lump in the right breast for the past 5 months duration. History of swelling in the right inguinal regional was present for the past 3 weeks duration. On examination patient had a hard lump of about 3*3 cm in the right upper quadrant. The lump was freely mobile. A 4*3 cm firm, mobile, central axillary lymph node was palpable. There was also a hard fixed right inguinal lymph node of size 4*2 cm involving the horizontal group present. Examination of abdomen, spine and cranium was normal. Per rectal examination was normal. Examination of vulva was normal. Per vaginal examination was normal. Per speculum examination was normal. Bilateral lower limb examination was normal. With this a clinical diagnosis of carcinoma of right breast (T2 N1MO) was made pending the evaluation of inguinal lymph node.

Mammographic evaluation of bilateral breast and axilla was done. A 2.5*2.5 cm BIRADS 5 lesion in the right upper quadrant was found. Opposite breast and axilla was normal. Trucut biopsy of the breast lump was done. The report came as infiltrating ductal carcinoma. FNAC of right axillary lymph nodes were positive for malignancy. FNAC of the right inguinal lymph node was positive for metastatic carcinomatous deposit. Chest x-ray and x ray spine was normal. USG abdomen was normal. Receptor study for breast carcinoma was done which came out as ER - +ve, PR - ve, Her 2 neu -ve.

The case was discussed in tumor board which consisted of a multidisciplinary team. Meanwhile whole body PET-CT was also done. The report was as follows

- Right breast primary tumor with right axillary, mediastinal, internal mammary, epinephric, retroperitoneal lymph nodes with right inguinal lymph nodal metastasis.

USG guided trucut biopsy of right inguinal lymph node was done to identify the cell of origin as per pathologist advice. IHC report was as follows

- CK 7 : POSITIVE

- CK 20 : POSITIVE
- ER: POSITIVE
- GCFDP 15: POSITIVE
- P63: NEGATIVE
- Her2/neu: NEGATIVE
- CEA: NEGATIVE

The result was compatible with metastatic carcinomatous deposits with likely primary from breast. The case was again discussed in tumor board and planned for palliative chemotherapy.

One cycle of Docetaxel, Adriamycin, Cyclophosphamide based chemotherapy was given. There was only minimal regression of lump and lymph node size noted. Patient was also not able to tolerate the chemotherapy regimen. Hence the patient was started on 5- fluorouracil, Adriamycin, cyclophosphamide based chemotherapy. Three cycles were given. The patient was reassessed after 3 cycles. There was near total regression of breast lump and right inguinal lymph node was not palpable. Whole body PET-CT was done. The report was as follows

- Faint metabolically active residual soft tissue lesion in the right breast- ? residual fibrotic lesion post therapy/ ?? residual malignant lesion.
- Metabolically inactive nodes in right axilla.
- Interval complete metabolic resolution with significant reduction in size of right supraclavicular, bilateral internal mammary, mediastinal and bilateral epinephric, abdominal and right inguinal lymph nodes.

The case was again discussed in tumor board and decision was taken to proceed with palliative right simple mastectomy for residual primary lesion.

Post right simple mastectomy specimen revealed ypT0. Patient was given 3 cycles of 5- fluorouracil, Adriamycin, cyclophosphamide based chemotherapy postoperatively. Patient tolerated chemotherapy well and she was started on tamoxifen. Patient is on regular follow-up for the past 6 months and she is doing fine.



FIG-1 PRE CHEMO TUMOR SIZE

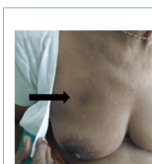


FIG-2 POST CHEMO TUMOR SIZE



FIG-3 PRE CHEMO RT INGUINAL LYMPH NODE



FIG-4 POST CHEMO RT INGUINAL LYMPH NODE

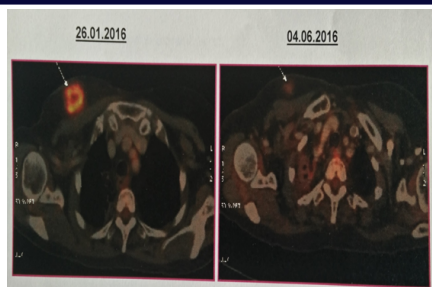


FIG- 5. PET- CT SHOWING REGRESSION OF BREAST TUMOR SIZE

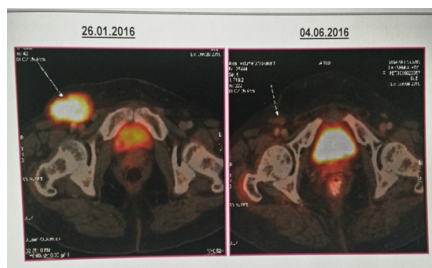


FIG-7 PET-CT SHOWING REGRESSION OF RIGHT INGUINAL SECONDARIES

DISCUSSION:

The major route of lymphatic drainage of the breast is via the axillary lymph node groups. There have been considerable variations in nomenclature for the lymph node groups of the axilla as the boundaries of these nodal groups are not well demarcated. The most commonly used terms to describe the axillary nodes are as follows:

1. The axillary vein group.
2. The external mammary group.
3. The scapular group.
4. The central group.
5. The subclavicular group.
6. Interpectoral group.

W. Sampson Handley is credited with the recognition of metastatic spread of breast carcinoma to the internal mammary nodes as a primary route of lymphatic dissemination.

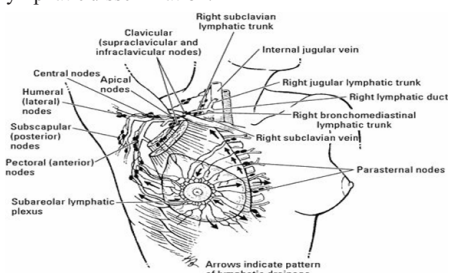


FIGURE-9. LYMPHATIC DRAINAGE OF BREAST

The right internal mammary nodal group drains into the right lymphatic duct whereas the left enters the main thoracic duct.

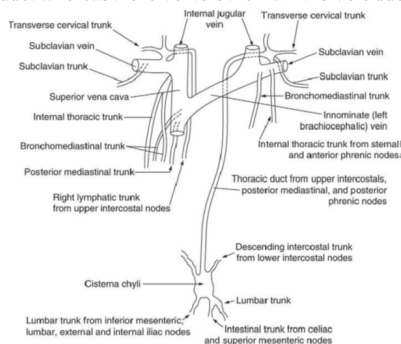


FIG -10. LYMPHATIC DRAINAGE OF INTERNAL MAMMARY NODES.

Though the route of spread to the above mentioned lymph node stations were well documented the route of spread to inguinal lymph nodes is not known probably due to rarity of its occurrence. The pathogenesis is speculative and probably due to **retrograde embolization**. Other possible routes are **hematogenous spread**. It may also occur due to blockade of axillary lymphatics with tumor spread taking place through **submuscular fascia**.

SUMMARY:

To summarize carcinoma of breast presenting with inguinal lymph node secondaries is very rare and it signifies an advanced disease. The route of spread is speculative only. The most probable route of spread can be identified only when more number of cases are reported.

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