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Axillary B-Cell Non-Hodgkin Lymphoma Mimicking Kikuchi Fujimoto Necrotising Lymphadenitis and Medullary Carcinoma of Breast

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Abstract: ***Axillary B-Cell Non-Hodgkin Lymphoma (NHL) comprises a large group of heterogeneous neoplasm of lymphoid tissue and blood. The typical presentation is of a rapidly enlarging tumour mass at single or multiple nodal sites. Kikuchi Fujimoto disease (KFD) is an extremely uncommon benign and self-limiting disease. It was first described in Japan in 1972. [1] It usually affects the female. Most of the cases improve within six months period.***

Keywords: Kikuchi Fujimoto necrotizing lymphadenitis, B-cell Non-Hodgkin Lymphoma, medullary carcinoma breast.

1. Introduction

KFD is an extremely uncommon, benign & self-limiting disease. B-cell non-Hodgkin lymphoma is the most common NHL, its prevalence in the breast is 0.5%.

We present a case 54-year-old female patient, who came with swelling in the axilla since one year. Initial biopsy showed features of KFD and excision of lump showed a diagnosis of medullary carcinoma of the breast, which later on diagnosed as B-Cell Non-Hodgkin Lymphoma on IHC. Our case report establishes the need for IHC in all cases of breast biopsy.

2. Case Report

A 54-year-old female patient came to our hospital with a complaint of swelling in the left axilla since one year. No history of pain, fever, any discharge from the swelling, trauma, no history of associated cyclical changes. The patient was a known case of diabetes mellitus, well-controlled on medication. No past surgical history. On local examination, there was an oval, hard, non-mobile, non-tender 10x4 centimetre (cm) lump present in the left axilla (figure1). Ultrasonography of the breast showed features suggestive of BIRAD-V in the left breast. Computerized tomography of the chest showed neoplastic growth in the left breast axillary tail region with metastatic axillary lymphadenopathy.

An incisional biopsy was taken from the left axillary lump. Histopathological examination was done on microscopy, which showed architecture uneffaced and shows large areas of necrosis with apoptotic and necrotic debris with no evidence of granulomatous lesion. (Figure 2), features are suggestive of Kikuchi Fujimoto Necrotizing lymphadenitis of the left axillary lump.

As the lump increases in size over the period of oneyear, the patient was planned for wide local excision.

Wide local excision of the lump with a 1cm margin was done and Excised specimen of the lump was sent for HPE.

Histopathological examination (HPE) of the excised specimen is suggestive of-Medullary Carcinoma of the breast with nodal metastasis. Section studied shows a breast tumour with a syncytial pattern of growth with large pleomorphic cells arranged in sheets separated by a scanty fibrovascularstroma. (Figure3) Further IHC of the specimen showedlarge cells positive for CD20 strongly & MVM1 in 50% cells, CD10 TV negative, CD3 strains background cells. AE1/ARE and synaptophysin are negative. M1B1 is restricted to large cells features that are suggestive of non-Hodgkin lymphoma B-cell type – Lt axillary region. The patient was referred to Oncologist for chemotherapy and was started on CHOP regimen.

3. Discussion

Kikuchi Fujimoto necrotizing lymphadenitis has a higher prevalence in Asian people in the young age group. The aetiology is unknown, and it is present because of acute tender cervical lymphadenopathy and fever. [2]On microscopy, it is characterized by a necrotizing Lymphadenitis associated with karyorrhexis and by paucity, or more commonly an absence of granulocytes. Open Biopsy is the only reliable way to establish the diagnosis. There is no specific treatment for KFD but the disease is a self-limiting only symptomatic treatment consisting of analgesic and antipyretic is needed.

B Cell Non-Hodgkin lymphoma:
Axillary B-Cell Non-Hodgkin Lymphoma (NHL) comprises a large group of heterogeneous neoplasm of lymphoid tissue and blood. [3]Diffuse large B-cell lymphoma is the most common NHL, accounting for around 30% of adult cases in western countries. In adults, the most common types of NHL are diffuse large B-cell lymphoma (DLBCL, a high-grade B-cell lymphoma) and follicular lymphoma (a low-grade B-cell lymphoma). Some types of NHL grow faster than others. NHL is called ‘high grade’ when the lymphoma cells are dividing quickly. Most people with DLBCL first notice painless lumps, often in their neck, armpit or groin. These are swollen (enlarged) lymph nodes. They usually grow quite quickly, over just a few weeks. Around 1 in 3 people with DLBCL experience fevers, night sweats and

unexplained weight diagnosis is made by the biopsy and histopathological examination. NHL may sometimes appear as poorly differentiated carcinoma by conventional histology. Negativity for Cytokeratin (e. g. AE1/AE3) and strong positivity for the leukocyte common antigen and CD20allows the diagnosis of B-cell NHL to be made. The prognosis of B Cell Non-Hodgkin lymphomais 65% patient has a five-year survival rate.

Treatment of DLBCL iswith a short course of chemotherapy or chemo-immunotherapy, sometimes followed by radiotherapy.

The most commonly used chemotherapy regimen is CHOP: cyclophosphamide, hydroxydaunorubicin (doxorubicin), vincristine (also known as Oncovin) and prednisolone. This is usually given with an antibody therapy called rituximab. The combination is known as 'R-CHOP' [4]

Medullary carcinoma of the breast

Medullary carcinoma is a rare and distinct subgroup of breast carcinomas. it accounts for less than 5% of all invasive carcinomas. [5] Usually present in younger age group. Some patients with this tumour type exhibit axillary lymphadenopathy at the time of presentation, suggesting the presence of metastatic disease. The diagnosis of medullary carcinoma in the majority of cases is established based on H&E sections. The treatment of medullary breast carcinoma includes modified or radical mastectomy along with radiation or chemotherapy, depending on the stage. The five-year survival rate of medullary carcinoma of breast tends to be around 89-95%.

In our case report age of our patient was the older age group and since the lump was increasing in size which was painless, without fever and even though the diagnosis was in favour of KFD, we decided to do an excision biopsy which later on turn as B-Cell Non-Hodgkin lymphoma on HPE. Which totally changed the line of management and prognosis.

4. Conclusion

All cases with suspicious axillary and breast lump with confusing HPE features should be confirmed by IHC before deciding the final line of management.

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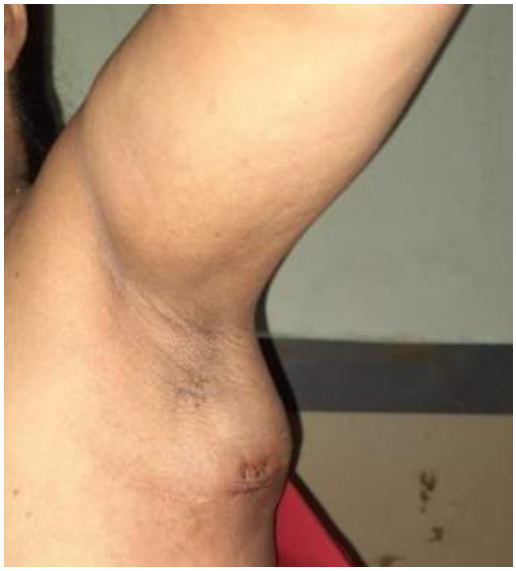

Figure 1

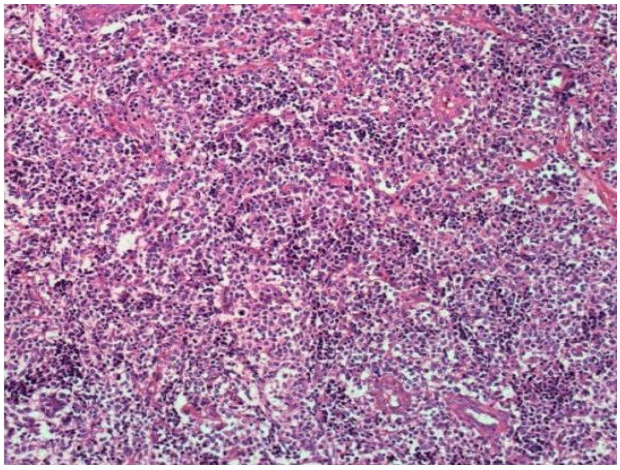

Figure 2

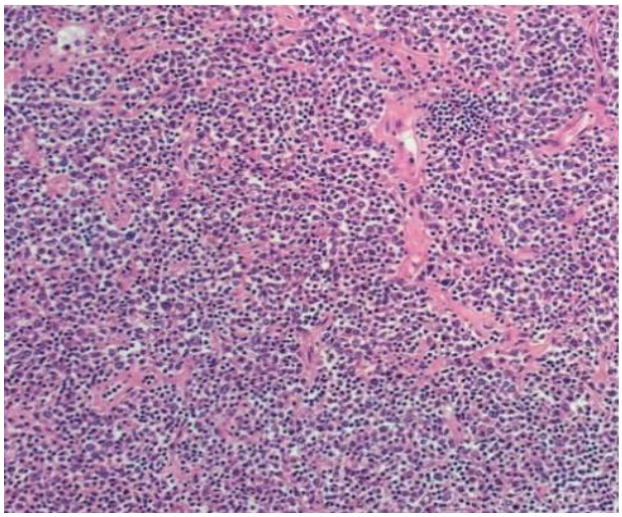

Figure 3