

A Case Report: Myiasis in a Case of Mucinous Variant of Invasive Ductal Carcinoma of Breast - A Rare Presentation

Dr. G. L. Anmod¹, Dr. Kshitija Pokharkar², Dr. Ravibhushan Kasale³,
Dr. Govind Phad⁴, Dr. Kshitija Pokharkar⁵

¹HOD and Professor, Vilasrao Deshmukh Government Institute of Medical Sciences, Latur

²Junior Resident, Vilasrao Deshmukh Government Institute of Medical Sciences, Latur

³Assistant Professor, Vilasrao Deshmukh Government Institute of Medical Sciences, Latur

⁴Senior Resident, Vilasrao Deshmukh Government Institute of Medical Sciences, Latur

⁵Junior Resident, Vilasrao Deshmukh Government Institute of Medical Sciences, Latur

Abstract: Carcinoma Breast is a leading cause of mortality and morbidity worldwide. Myiasis or maggots infestation in carcinoma breast has become prevalent in low socio economic groups due to lack of healthcare and negligence. Early identification and prompt treatment can lead to effective cure.

Keywords: Carcinoma breast, myiasis, estrogen, mucinous

1. Introduction

MYIASIS refers to infestation of live human or animal tissue by dipterous larva. They complete their life cycle by feeding on dead or living tissues. Adult flies are not parasitic but when they lay eggs in open wounds and hatch in larval stage, those larvae feed on necrotic tissue and cause myiasis. They are found in tropical and subtropical countries due to poor hygiene, warm and humid climate, lack of public education and awareness

Myiasis invade open wounds as well as macerated skin or they enter through natural orifices. Specific Myiasis is caused by species named Dermatobia Hominis - it causes cutaneous myiasis, Hypoderma species, Lucilia Serricata.

Carcinoma Breast is second most leading cause of Cancer related mortality in women. Incidence is 19 - 34% and median age being 48 years. Invasive Ductal Carcinoma is the Most Common subtype of Breast tumour. Carcinoma in one breast increases the risk of developing carcinoma in opposite breast by 3 - 4 times. Classification of breast Carcinoma includes -

Non - Invasive Epithelial - Ductal Carcinoma in situ and Lobular Carcinoma in situ. Invasive Epithelial which includes:

Invasive Ductal Carcinoma - which is most common type
Invasive Lobular Carcinoma,

Histological subtypes of Breast cancer are -
Invasive Ductal with No special type - 70% -
Tubular - 2%, Mucinous - 2%, Medullary - 5%, Cribriform - 2%, Adenoid Cystic - 1%, Metaplastic - 1%.

Myiasis by itself is not an uncommon condition but Myiasis

of breast is a rare occurrence. Here, we report a case of Mucinous Histological variant of Invasive ductal carcinoma with Maggots infiltration.

2. Case Report

A 73 years old female patient presented to the surgery OPD of our institute with complaints of pain, redness, swelling and a foul smelling and discharging wound with maggots in right breast since 2 months. She also complained of Bloody Nipple discharge since 1 month. Patient had history of lump in right breast since 1 year but didn't seek medical advice, living in a remote area bereft of healthcare facilities. On account of the overpowering foul odor emanating from her, relatives forced her to seek medical advice.



Clinical picture on presentation

3. Clinical Examination

On examination, Patient was toxic with tachycardia and increased Total Leucocyte count and Fever. On clinical examination, majority of breast was hard in consistency with a purulent serosanguineous discharging ulcer, which was foul smelling secondary to superimposed bacterial infection.

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The surrounding skin was oedematous, inflamed and tender to touch with nipple areola complex was intact. Right axillary lymph node of central compartment were palpable and Left breast was normal.

The wound was debrided thoroughly with application of Turpentine oil and manual evacuation of maggots. It was then followed up with regular cleaning and dressing with povidone - iodine and hydrogen peroxide. The patient was given wide spectrum antibiotics. The wound became maggots free within 7 days of treatment.

4. Clinical Approach

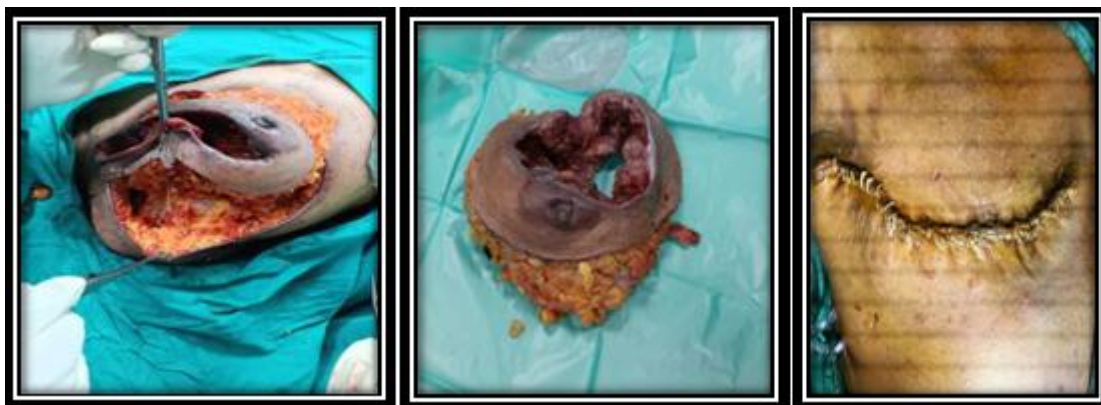
Patient was investigated and routine blood investigations were sent. Patient underwent FNAC and the reports were suggestive of "suspicious of malignancy" Patient underwent CECT THORAX and the report stated a presence of a lobulated soft tissue density mildly enhancing lesion of approximate size 120x106x99mm noted in central quadrant

in retro areolar region of breast suggestive of malignant neoplastic aetiology. Anteriorly, lesion seen infiltrating the overlying skin. Surface irregularity seen which was suggestive of infiltration. Fat plane with underlying pectoralis major muscle at places appears lost. Patient was followed up with regular cleaning and dressing for 15 days following which the wound appeared healthy. Patient was planned for surgical intervention and posted for **MODIFIED RADICAL MASTECTOMY**

5. Intraoperative Findings

Patient underwent **Modified Radical Mastectomy**. The lesion was abutting the pectoralis major fascia. Evidence of matted enlarged central group of axillary lymph nodes largest measuring 4x3cm.

Level I and Level II axillary Dissection was done.



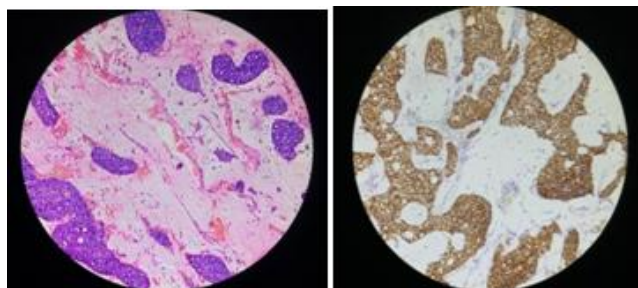
Intraoperative picture Excised specimen sent for HPR Post operative scar photo

Histopathology report of Mucinous Neoplasm of Breast and IHC s/o Estrogen Receptor positive.

6. Histopathology

Section of specimen revealed a cellular mucinous neoplasm of breast with solid papillae, strands and micropapillae of tumour floating in pools of extracellular mucin suggestive of Mucinous Carcinoma of Right Breast with nodal metastasis. Lymphovascular emboli and perineural invasion present. Axillary lymph node shows metastasis. IHC typing suggestive of ER (Estrogen receptor positive tumor)

PROGNOSIS: A pure mucinous subtype carries a good prognosis and tendency to metastasize is less than other variants of breast cancer. Patient was then consulted for Radiotherapy and Chemotherapy post - operatively.



7. Discussion

Cutaneous myiasis is a rare entity. It is infestation of human skin with maggots if flies which feed on host tissues. Majority of cases are caused by Human Botfly (*Dermatobia Hominis*). Cutaneous myiasis is presented as a slow developing ulcer. Some of the physical presentations of mastitis are similar to those of carcinoma of breast. It is important to note that an affected breast with myiasis, which appears like fungating mass with an ulcer, can sometimes be misdiagnosed and is confused with tuberculosis, mycosis, actinomycosis, furunculosis, chronic breast abscess, fungating malignancies, periductal mastitis, inflammatory carcinoma of breast and cellulitis. Therefore, it is very important to keep this rare but possible disease in differentials when diagnosing the condition. Risk factors should be kept in mind, such as living in endemic area, the characteristic intense itching of the affected breast, offending maggots. Poor personal hygiene is an important cause of myiasis, it can be prevented by proper sanitation, good personal hygiene. After the treatment of myiasis, any remaining ulcer should be biopsied in order to rule out malignancy, as in our case, cutaneous myiasis occurred in a case of Mucinous variant of Invasive Ductal Carcinoma of Breast. Mucinous variant can be divided into Pure Type and

Mixed type. Former is composed entirely of tumour cells with extracellular and intracellular mucin in over 90% of tumour and is more frequent whereas Latter includes infiltrating components such as ductal or lobular breast cancer and contains <90% mucin. Histological Examination is mandatory to confirm the diagnosis and to establish different pathological prognostic factors.

8. Conclusion

Myiasis in Carcinoma breast is a rare but possible entity and we should include it in our differentials which is necessary to avoid delay in diagnosis and adequate treatment in future.

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