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A Brief Study on Primary Melanoma over Breast Region

K. M. Hiwale[1] and Avadh Kishor Tyagi[1*]

[1]Department of Pathology, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences, Sawangi(M), Wardha, India.

Authors' contributions

This work was carried out in collaboration between both authors. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Background: Malignant melanoma is mostly found in mucous membranes and skin. So it's occurrence on the breast skin is very rare.
Case Presentation: In our study, 50-year-old female came to OPD with complaint of skin lesions on the breast since 2 months. On diagnosis, skin lesion was found to be malignant melanoma and the disease had metastasized in right axillary lymph node with discoloration over breast.
Conclusion: The prognosis for patients with this disease is very poor. Important procedures which may increase the survival rate include, Early diagnosis and surgical resection with adjuvant therapy.

Keywords: Prognosis; Primary malignant melanoma; breast; IHC; Melanocytes; skin membrane.

1. INTRODUCTION

It mainly found in the skin, choroid, mucous membrane and. This disease arise from melanocytes that produce melanin. Ultraviolet from sunlight is most common cause melanoma. Major risk factors are fair skin, history of sunburn, excessive ultraviolet exposure, unusual mole,

**Corresponding author: E-mail: dr.avadh82@gmail.com;*

and family history [1]. Three types of melanoma are found, Superficial spreading melanoma, Nodular melanoma, Acral lentiginous melanoma, Lentigo maligna [2]. This disease is very rare. Incidence of it is less than 05% of all melanoma with poor prognosis [2].

2. CASE HISTORY

50 year old female come with chief complaint of mass over right breast since 02 months. Clinical finding revealed that mass is present over upper inner quadrant of right breast measuring 04 x 03 cm with blackish discoloration and discharge from mass, local tenderness also present.

USG finding were hyperechoic vascular lesion on stem of right breast with right axillary lymphadenopathy. FNAC from right axillary node shows deposits of melanocarcinoma.

MRM was performed and specimen was submitted for histological examination.

Gross Examination: Lobular, black pigmented mass, smooth surface, hard in consistency measuring 3.5 x 03 x 1.5 cm. On cross section, jet black homogenous area identified.

Microscopic Examination: Showed spindle cells as well as polygonal cells arranged in sheets, singly and in fascicles with round nuclei having prominent mega nucleoli, shifting of chromatin towards nuclear membrane, invading the overlying dermis and also into deep structure.

Fig. 1. Gross View of resected lesion

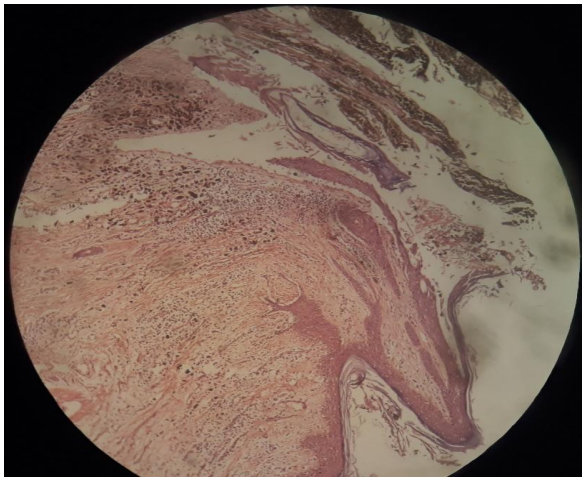

Fig. 2. Histopathological Section of Melanocarcinoma 10x

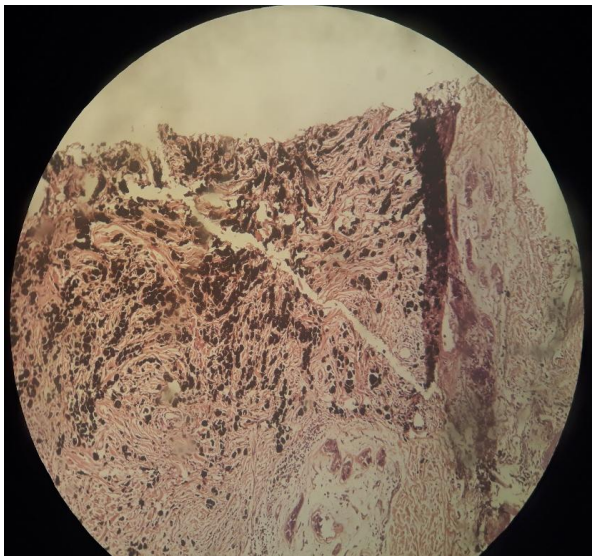

Fig. 3. Histopathological Section of Melanocarcinoma 40x

Immunohistochemistry: HMB-45, S-100, Melan-A. HMB-45 is much more specific marker than S-100 [2].

Final Diagnosis: Primary melanoma over breast.

3. DISCUSSION

It is highly malignant tumor which arise from melanocytes. Incidence of this disease has risen from last 10 years. It mostly occur in the skin, choroid, mucous membranes but it may occur anywhere. Primary melanoma over breast is very rare, with <5% incidence of all melanomas [3,4]. The definite etiology of it remains unknown but ultraviolet radiation from the sun consider as a main cause of it. Diagnosis of it mainly dependent on histopathology, IHC and electron microscopy. Main characteristic features during diagnosis are : i) Nuclear atypia and Pleomorphism of tumor cells ii) intracellularly scattered pigment melanin granules (6-10% of this disease show little or no pigment, known as amelanotic melanoma) [5] iii) IHC show positive results for HMB-45, S-100, and melan-A [6] iv) Melanosome identifying on electron microscopy [7]. Diagnosis of it is sometime very difficult and requires IHC staining. Positive result of S-100 is a good indicator for it, but it also show in 50% of breast tumor. So it should be confirm with positive result of HMB-45 and melan-A. Ki-67 staining also can be used to differentiate between malignant and benign tumors [8,9]. In our study, primary symptom was seen by the female was the tumor over left breast. After the clinical examination, histopathological features, that female suffered with primary malignant melanoma over breast. Primary treatment is surgery (Wide local excision), with combination of chemotherapy, radiotherapy and immune therapy [3,9]. Sentinel lymph node biopsy decrease requirement of unnecessary lymph node dissection [10,11]. Radiotherapy may be used when lesion is unremovable [12,13]. It is noted that immuno with chemotherapy may increase effectiveness of patient treatment [14,15]. Chemotherapy (dacarbazine, temozolomide, cisplatin and taxol) is mostly used for pre and postoperative adjuvant-therapy [16-20]. Studies related to carcinoma of breast and lungs have been reported [21-25].

4. CONCLUSION

Primary malignant melanoma over breast is a rare disease; with very poor prognosis. Early diagnosis, proper surgical resection and pre and postoperative adjuvant therapy have major role in patient survival rate.

CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline patients consent and ethical approval has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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