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APOCRINE CARCINOMA OF BREAST-A CASE REPORT OF 3 CASES

Pathology

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ABSTRACT

Apocrine carcinoma is a very rare form of breast malignancy with an incidence varies between 0.3% and 4% of all female's breast cancer, also is rare in male. We report 3 cases of apocrine carcinoma, one in female breast and two in male breast. USG breast showed ill defined, hypoechoic, heterogenous mass noted, involving entire breast and multiple variable sized lymph nodes noted at axillary region. (Similar finding seen in all the cases). For which MRM was done and sent for histopathological examination.

Microscopically: Tumor Cells were present in nests, papillae and glands. The tumor cells had moderately pleomorphic, hyperchromatic nuclei, conspicuous nucleoli and abundant eosinophilic cytoplasm and reported as Apocrine Carcinoma. (similar finding seen in all the cases)

KEYWORDS

Apocrine, Breast, Carcinoma, Ductal, Invasive, Malignant

INTRODUCTION:
Apocrine carcinoma of the breast is a rare malignant tumor whose incidence varies between 0.3% and 4% of all female's breast cancer.[1] Average age of onset is between the sixth and seventh decade.[1 This tumor is very rare in men.[2] The survival rate at 5 years was significantly better for the apocrine carcinoma (72%) with a longer time of recurrence compared to non-apocrine carcinoma.[2] Microscopically, apocrine carcinoma demonstrates the same architectural growth pattern as invasive ductal carcinoma, not otherwise specified type (IDC-NOS), differing only in their cytological appearance.[1] Cells are characterized by typical apocrine features, namely, abundant eosinophilic granular cytoplasm and prominent/multiple nucleoli[1].

Case Report:
Here we report 3 cases of apocrine carcinoma. USG breast showed ill defined, hypoechoic, heterogenous mass noted, involving entire breast and multiple variable sized lymph nodes noted at axillary region. (Similar finding seen in all the cases). For which MRM was done and sent for histopathological examination.

Case 1:
58 years male, presented swelling over right chest wall since 2 years, which was gradually increasing in size and overlying skin got ulcerated.

Gross Examination:
MRM specimen was received consisting of right breast with axillary tail. Nipple areola - identified, grossly u/r. A large ulcerative growth of size 5x5x3 cm. present on overlying skin flap. Cut section shows grey white hard area of size 5.5x4x3 cm (Inner upper Quadrant). Total 5 lymph nodes were identified.

Case 2:
69 years male, presented swelling over left chest wall.

Gross Examination:
MRM specimen was received consisting of left breast with axillary tail. Nipple areola - identified, grossly retracted. Cut section shows grey white hard area of size 3.5x2.5x4 cm (Inner quadrant).Total 3 lymph nodes were identified.

Case 3:
46 years female, presented with swelling over right breast since 15 days

Gross Examination:
MRM specimen was received consisting of right breast with axillary tail.Nipple areola - identified, grossly ulcerated and pus discharge.A large ulcerative growth of size 6x5.8x2 cm. present on overlying skin flap. (Upper outer quadrant)Cut section showed grey white hard area of size 8.5x7.5x1 cm.Total 5 lymph nodes were identified

Fig.1

Fig.2

Figure 1 and 2 : Gross of MRM Specimen with axillary tail: External surface- Ulceratation on overlying skin of breast (Fig.1) **Cut Surface** – A grey white hard growth present (Fig.2)

Microscopically:
Tumor Cells were present in nests, papillae and glands. The tumor cells

had moderately pleomorphic, hyperchromatic nuclei, conspicuous nucleoli and abundant eosinophilic cytoplasm and reported as Apocrine Carcinoma. (similar finding seen in all the cases)

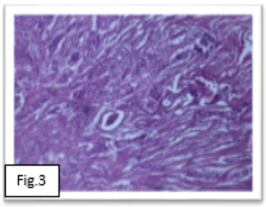
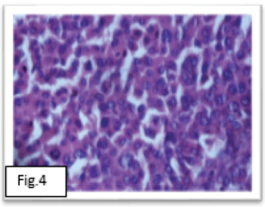


Fig.3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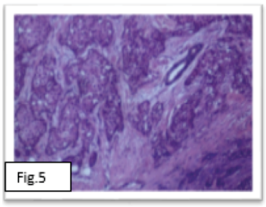
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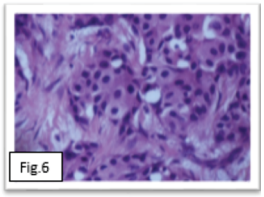
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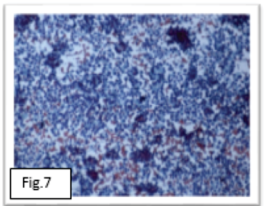
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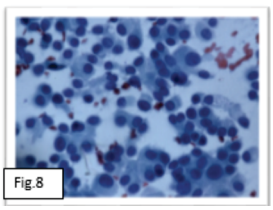
Fig.8

Microscopic pictures - Fig.3 - Calcification (H&E, 40X), Fig.4 - Apocrine glands (H&E, 100X) Fig.5 & Fig.6 - pleomorphic, hyperchromatic nuclei, conspicuous nucleoli and abundant eosinophilic cytoplasm (H&E, 100X & 400X), Fig.7& Fig.8 – (Pap stain, 100x & 400X)

DISCUSSION:

Apocrine carcinoma is a rare and distinct morphological type of invasive breast cancer. Although prognostically same as IDC-NOS, apocrine carcinoma should be diagnosed as separate entity, as there are growing bodies of evidence that apocrine carcinoma may have different hormonal profile.[1]

The new molecular classification of breast cancers based on studies of CGH array, classifies apocrine carcinoma individually.[3] Immunohistochemical study shows an expression of **GCDFP-15** in 76% to 100% of cases. {2] Androgen receptors are expressed in 54% of cases.[4] Moreover, tumor cells can express B72.3, estrogenic-beta receptors, HER2, p53 and Ki-67.[4] Usually, these tumors do not express the estrogen receptor-alpha, progesterone receptors and bcl-2.[4]

CONCLUSION

- Apocrine carcinoma of the breast is a distinct histological and molecular entity. It is rare in women and exceptional in man. Studies are being conducted to use anti-androgens such as targeted therapy.
- Clinical outcome of the patients with apocrine carcinoma is unclear and further clinical studies are warranted.

REFERENCES

1. Tavassoli FA, Devilee P, Ellis, Schnitt SJ, Sastre-Garau X, Bussolati G, Eusebi FAV, Peterse JL, Mukai K, Tabar L, Jacquemier J. WHO Pathology and Genetics Tumours of the Breast and Female Genital Organs. Lyon: IARC Press; 2003. Invasive breast carcinoma; pp. 36–37, 56-59. World health organization.
2. Shah DJ, Persaud V, Coard K. Apocrine carcinoma of the male breast. West Indian Med J. 1980 Dec;29(4):272–6.
3. Loeb LA: A mutator phenotype in cancer. Cancer Res 61: 3230–3239, 2001
4. Gogoi S, Borgohain M, Borah A, Agarwal V. Study on apocrine carcinoma of breast: Histomorphologic features and immunohistochemical behaviour. Int J Basic Appl Med Sci 2012;2:190-3.