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ELEVENTH ANNUAL MEETING

WHEN IT RAINS IT POURS. A CASE REPORT OF UNEXPECTED DOUBLE MALIGNANCY IN AN EGYPTIAN FEMALE PATIENT

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INTRODUCTION

There are very few reports of the coexistence of acute myeloid leukemia (AML) and breast cancer since 1965. Usually, this double malignancy carries poor prognosis; it is different from therapy-related (t-AML) where the cancer occurs secondary to chemotherapy.

AIM

Here we present a rare case of double malignancy: hematological and solid neoplasms in a female patient.

CASE PRESENTATION

A female patient 55-years old, with no significant medical history, complained of persistent fatigue. Blood work up revealed leukocytosis (TLC 137 x10^9/L), thrombocytopenia (PLT 16 x10^9/L) and normocytic anemia (Hb 9.3 g/dL).

INTERVENTIONS

Bone marrow examination was normocellular with 26% blasts. Bone marrow (BM) biopsy specimen revision illustrated hypercellular BM, normal count and morphology of erythrocyte lineage, depressed granulocytic and megakaryocytic lineages, and infiltrated by myeloblasts, monoblasts , promonocytes and increased basophils (AML-M4). **Immunophenotyping** revealed positive MPO, CD13, CD33, CD117, CD 64, CD11b, CD11c, HLADR and dim CD4; t(8;21) and Inv(16) were negative. **Routine baseline radiological assessment** discovered a left breast suspicious lesion, supra- and infra-diaphragmatic lymphadenopathy and splenomegaly with multiple focal lesions. **Combined bilateral mammogram** revealed left breast upper outer quadrant (UOQ) malignant looking mass (BIRADS 6) and right breast 3 o'clock indeterminate nodule (BIRADS 2) as well as malignant-looking bilateral axillary and supraclavicular lymph nodes. Tru-cut biopsy from left breast mass showed invasive carcinoma with signet ring features [Fig.1], Grade II, ER [Fig.2] and PR positive and Her2 negative [Fig.3], and KI 67 15% [Fig.4]. No metastasis was detected. **The decision** was to start standard intensified chemotherapy (3+7) protocol plus neoadjuvant treatment (aromatase inhibitor).

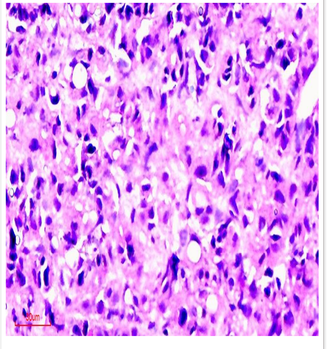


Fig.1 Tru cut biopsy from left breast mass showing invasive carcinoma with moderate pleomorphism with occasional signet ring morphology (H&E, magnification x400)

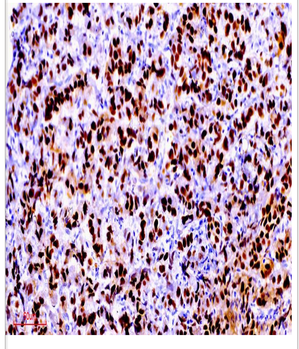


Fig.2 Immunohistochemical staining for ER revealed strong nuclear reaction in 90% of tumor cells (IHC, ER, magnification x200)

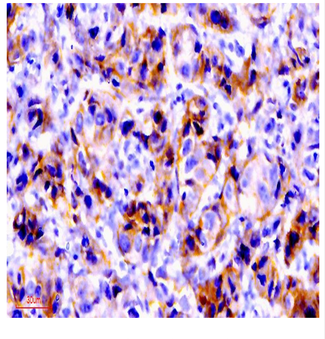


Fig.3 Immunohistochemical staining for HER2 revealed incomplete faint membranous reaction in <10% of tumor cells (IHC, HER2, magnification x400)

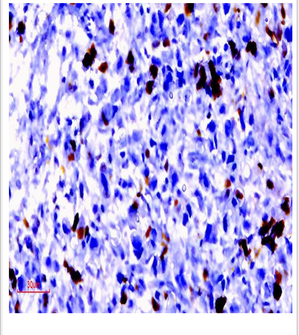


Fig.4 Immunohistochemical staining for Ki-67 revealed positive nuclear reaction in 15% of tumor cells (IHC, Ki-67, magnification x400)

RESULTS

The patient did not achieve response to induction therapy, her BM examination showed 49% blasts. And the patient was also refractory after two cycles of salvage chemotherapy (HAM and FLAG). The patient is now on BSC and hormonal therapy.

CONCLUSION

Synchronous occurrence of these 2 neoplasms is rarely reported. Collaboration of various expertise in the field of hematology and oncology is needed to deliver the best care for this patient .

CONTACT INFORMATION

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