BURKITT'S LYMPHOMA IN PREGNANCY: A SCARY STARRY PICTURE

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INTRODUCTION: Burkitt's Lymphoma is a rare, highly aggressive tumor with a rapid growth rate. It is even rarer during pregnancy and diagnosis is often difficult, symptoms are mostly related to the mass effect of the tumor, with a 6 month survival rate of 38.5% for mothers and a live birth rate of 69.2%. As aggressive as it is, it needs an aggressive multidisciplinary approach towards its management.

AIMS AND OBJECTIVES: To highlight the importance of a highly skilled multidisciplinary team in the management. The plan of delivery in accordance with the chemotherapy given and the high risks to the developing fetus inside the womb will be discussed.

CASE:

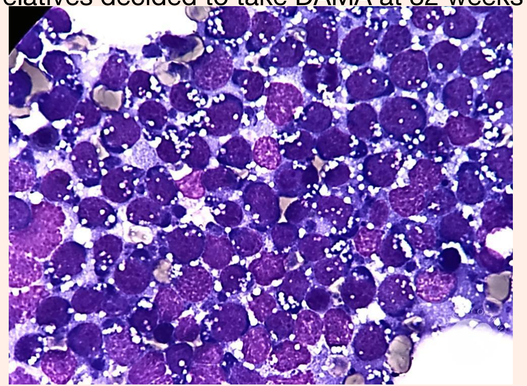
PRESENTATION: 29 year old female hailing from Uttar Pradesh, G3P2L2 previous FTND at 26 weeks of gestation with complains of left breast swelling associated with fever, with bilateral lower limb weakness since 1 day. Patient evaluated for breast lump at Lukhnow, with FNA suggestive of lymphomatous proliferation and HPE s/o Non Hodgkin Lymphoma. Patient was referred to TATA hospital, Mumbai. Further patient noticed bilateral lower limb weakness associated with high grade fever for which patient was referred to KEM hospital for further management.

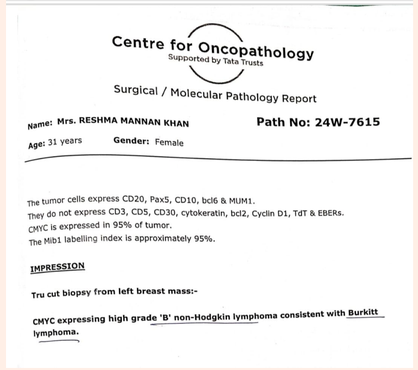
EXAMINATION : GC: moderate, conscious oriented, drowsy, febrile. P 112/min BP 100/70 mmhg sp02 98%on 10l NRBM(95% on RA) HGT 103, CVS: S1S2 + murmur + RS AEBE no adventitious sounds PA: ut 26 weeks, FHS +150 bpm relaxed. CNS E4V5M6 Power 0/5 in both lower limbs Tone reduced in bilateral LL.

INVESTIGATIONS: All routine, S LDHUSG whole abdomen with pelvis which suggested of bilateral ovarian deposits (lymphomatous), MRI brain WNL, MRI Spine s/o T1/T2 hypointense extramedullary lesions at cervical and lower lumbar levels with diffuse restriction suggestive of lymphomatous deposits. TRUCUT biopsy of left breast suggestive of CMYC high grade B cell NHL (Non Hodgkin Lymphoma)with starry sky pattern suggestive of Burkiitt's lymphoma

INTERVENTION: A detailed evaluation and joint discussion was done with all the senior consultants from Hemato-oncology, neurology, general medicine, icu intensivist, endocrinology, OBGYn, chest medicine, nephrology.Patient was started on antibiotics with anti fungal cover. After taking a high risk consent for potential fetal complications like preterm labour, intra uterine growth restriction, and sudden IUFD, and weighing the risks and benefits of chemotherapy, patient was initiated on R-CHOP (Rituximab,cyclophsphamide, doxorubicin, vincristine, prednisolone)egimen of chemotherapy. 2 cycle of R-CHOP were given and plan was elective termination of pregnancy at 34 weeks after 3rd cycle of chemotherapy.

OUTCOME: Mode of delivery was to be decided at 34 weeks based on the neurological status at that time. However patient and relatives decided to take DAMA at 32 weeks of gestation. Mother succumbed one day after DAMA at her home.





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Surgical / Molecular Pathology Report

Name: Mrs. RESHMA MANNAN KHAN Path No: 24W-7615

Age: 31 years Gender: Female

The tumor cells express CD20, Pax5, CD10, bcl6 & MUM1.
They do not express CD3, CD5, CD30, cytokeratin, bcl2, Cyclin D1, TdT & EBERs.
CMYC is expressed in 95% of tumor.
The Mib1 labelling index is approximately 95%.

IMPRESSION

Tru cut biopsy from left breast mass:-

CMYC expressing high grade 'B' non-Hodgkin lymphoma consistent with Burkitt lymphoma.

Table 1 Ann Arbor staging system (1971).

Stage	Involvement
I	Cancer is located in a single lymph node region (I) or a single extra-lymphatic organ (I_E)
II	Involvement of two or more lymph node regions (II) or localised involvement of extra-lymphatic organ or tissue with involvement of one or more lymph node regions (II_E) on the same side of the diaphragm
III	Cancer is located in lymph node regions on both sides of the diaphragm (III), sometimes accompanied by localised extra-lymphatic organ or tissue involvement (III_E) or splenic involvement (III_S) or both (III_{SE})
IV	Diffuse or disseminated involvement of one or more extra-lymphatic organs or tissues, with or without enlarged lymph nodes

DISCUSSION: Burkitt's lymphoma is defined as a highly aggressive lymphoma, often extra nodal composed of monomorphic, medium sized B cells with basophils, cytoplasms and mitotic figures. Chromosomal translocations involve myc (c myc)

In the absence of treatment, prognosis of patients is very poor. It is a rapidly growing tumor, doubling time is 25 hours. With high quality health care, evolved high dose short duration chemotherapy regimens prognosis has improved over years. In general children have better prognosis.

WHAT COULD HAVE BEEN DONE: To involve the family in decision making and keeping them updated regarding the treatment is crucial in managing such cases. A more holistic approach could have been followed involving a psychiatrist and a family counsellor to guide the family through this journey. More aggressive contraceptive counselling could have avoided this pregnancy which was unplanned, which in turn worsened the condition of the patient. Overall, educating the patients and family is as important as the clinical management in managing such an aggressive condition.

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