Chronic lymphocytic leukaemia (CLL) in pregnancy : A case report

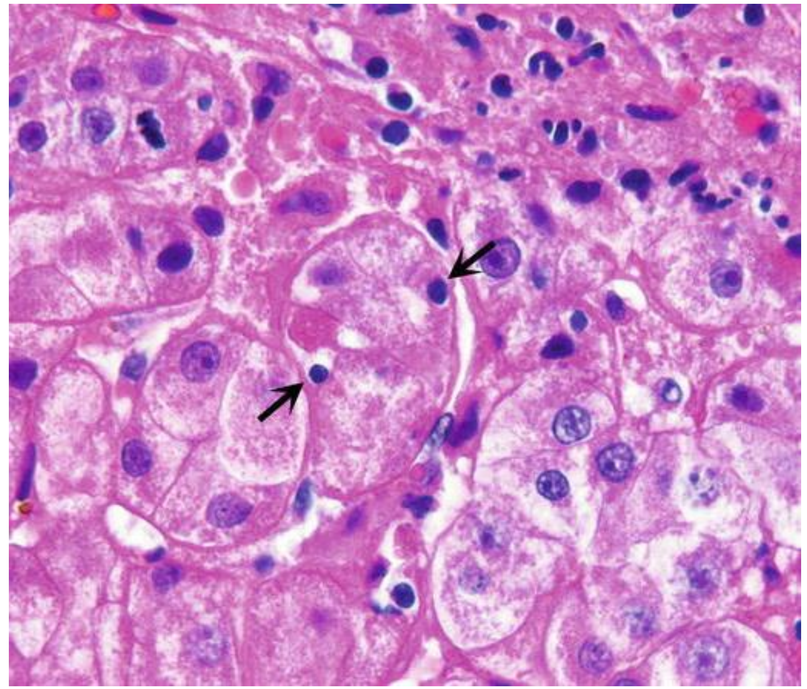
Objective:

Hematological malignancies in pregnancy are extremely rare. It poses significant challenges in the diagnosis and management due to its rarity, nonspecific clinic presentation and paucity of guidance of management .Chronic lymphocytic leukaemia(CLL)is one of these rare hematological malignancies which seldom coexist with pregnancy. There are only a handful of case reports in the medical literature describing CLL in pregnancy. Here we report the case of a37years old patient who was diagnosed with CLL during her pregnancy.

Case Report:

Mrs A was a37years old Gravida3Para2,who presented to our maternity emergency at37weeks of gestation with labor like pain. Her antenatal course was complicated by Covid pneumonia at6weeks and pre eclampsia diagnosed at35weeks of gestation. Her past obstetric, medical, surgical and family history was unremarkable. Her clinical examination was unremarkable. Hematology and biochemistry was done as part of evaluation of her pre-eclampsia. Incidentally total blood count reported as WBC:82.7 x10^3/u,Hgb:8.0 gm/dL,Platelets:143 x10^3/uL, Absolute neutrophil count:5.8x10^3/uL, Lymphocytes:76.1 x10^3/uL. Detailed evaluation of the case was commenced in liaison with the hematology team. Peripheral blood smear demonstrated moderate normocytic anemia with anisocytosis and few ovalocytes, marked leukocytosis with marked lymphocytosis-mostly mature looking with many reactive forms and smudge cells(Impression: Lymphoproliferative disorder likely CLL)Ultrasound abdomen revealed splenomegaly(18cm with no focal lesions).Obstetric ultrasound was reassuring. Flow cytometry analysis showed a population of CD5-positive monotypic B-cel79%)with kappa light chain restriction and immunophenotype of chronic lymphocytic leukemia/small lymphocytic lymphoma with atypical partial expression of CD79b.Multidisciplinary team meeting involving obstetricians, hematologists and anesthetists was held and decision was taken to expedite delivery to aid further work up including PET-CT and initiation of therapy. The patient had the induction of labor and uneventful vaginal birth. There were no intrapartum or post partum complications. Arrangements were made for hematology follow up. Postnatally she underwent CT scan which demonstrated post nasal space nasopharyngeal region and supra and infra-diaphragmatic lymphomatous proliferation. CLL FISH Panel analysis revealed abnormal hybridization signal pattern indicating deletions of TP53in~85%of the cells analyzed. She was started on Ibrutinib3months post natally. The patient is undergoing regular hematological follow up while this report is being written.

Discussion and conclusion:

It is not uncommon to encounter very challenging and rare medical disorders in our daily obstetric practice. This case emphasizes the need for systematic multidisciplinary approach in a specialized center. Each case should be individualized since there is paucity of evidence based guidance on management .This case also highlights the need to report such rare medical conditions to gather more evidence for future reference.

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