

Letter to the Editor-II

Pregnancy with Acute Myeloid Leukemia

Sir,

Management of Acute Myeloid Leukemia during pregnancy is challenging. We have recently seen one such case.

Case: A 26 years old female presented to clinical hematology clinic on 28/2/2007 with history of fever, anaemia and rash over limbs. She had amenorrhoea of 5 months duration. Examination revealed temperature of 101⁰F, severe pallor, petechiae all over the body. Per abdomen splenomegaly 4 cms, hepatomegaly 3 cms and uterus was enlarged corresponding approximately 20 weeks of gestation. With a clinical suspicion of Acute Leukemia patient was investigated and was transfused platelet concentrates; packed red cells. Investigations: Hb/4.6gm/dl, TLC - 2.4 x10⁹/L, DLC - P10 L24, Blasts 66%, platelets - 006 x 10⁹/L, blood - Urea 16 mg/dl, (S) Creatinine 0.42mg/dl, Bil 1.31mg/dl, ALT 81 U/dl, AST 140 U/dl, ALP 676 U/dl, total proteins 7.48 gm/dl, Albumin 3.4 gm/dl, LDH 1083 mg/dl and uric acid 4.1 mg/dl, ultrasonography abdomen showed hepatosplenomegaly with fetus of 20 weeks gestational age. Bone marrow aspiration showed hypercellular marrow with 75% of blasts which were positive for Sudan black and myeloperoxidase and negative for PAS. Flow cytometry CD13, CD33, CD34 were positive and cytogenetics revealed normal X X pattern. Final diagnosis AML-M2 with pregnancy. Family was counselled about induction chemotherapy and risks involved particularly in view of pregnancy. They decided to return later.

She returned back on 30/03/2007 with swelling on left side of mandible which was exuding pus. Patient was admitted and received supportive

treatment in the form of platelet concentrates, packed red cells and antibiotics. Pus culture grew staph aureus.

She received induction chemotherapy (3 + 7 regimen) with Daunorubicin 60 mg/m²/day x 3 days and cytosine arabinoside 200mg/m²/D x 7 days as continuous infusion. Patient developed mucositis and neutropenic fever also which was managed with I/V antibiotics. She was monitored for fetal growth with regular USG abdomen and obstetric consultations. Post induction day 14 marrow was grossly hypocellular. However, a repeat marrow 10 days later was cellular and in complete remission.

Patient delivered a male baby on 28-06-2008 (vaginal delivery). Baby did not show any evidence of disease or congenital defects. Peripartum period was uneventful. Subsequently patient was given 3 courses of consolidation chemotherapy using High dose cytosine arabinoside which she completed in October 2007. Her recent follow up on 20/10/2008 showed a normal physical examination, normal CBC and normal bone marrow examination.

COMMENTS:

There are numerous reports of successful management of acute leukemia during pregnancy.^{1,3} In the first trimester, termination of pregnancy should be discussed because of the potential toxicity of chemotherapy to the foetus. Chemotherapy during second or third trimester of pregnancy can be given safely with successful outcome without toxicity to foetus, as seen in present case.

Our patient did well during induction and consolidation chemotherapy and the supportive treatment requirement was at par with non-pregnant acute myeloid leukemia patients

She continues to be in complete remission 1 year after chemotherapy. However, a longer follow up is needed.

REFERENCES:

1. *Chelghoum Y, Vey N, Raffoux E, et al. Acute leukemia during pregnancy: a report on 37 patients and a review of the literature. Cancer. 2005;104(1):110-7.*
2. *Yucebilgin MS, Cagirgan S, Donmez A, et al. Acute myeloblastic leukemia in pregnancy: a case report and review of the literature. Eur J Gynaecol Oncol. 2004;25(1):126-8.*
3. *Su WL, Liu JY, Rao WY. Management of pregnancy-associated acute leukemia. Eur J Gynaecol Oncol. 2003;24(3-4):251-4.*

**Samoon Jeelani, Javid Rasool, Aleem Jan,
Sajad A, Geelani Afaq A. Khan and
Abdul Rashid Lone**

Department of Clinical Haematology
Sher-i-Kashmir Institute of Medical Sciences, Srinagar
E-mail: samoonjeelani@yahoo.com

