A case report of acute leukemia and pregnancy


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Abstract: We are presenting a case of a pregnant woman who was diagnosed to have acute leukemia at 20 weeks of gestation. She was started in multi-agent chemotherapy and was delivered at 28 weeks and 4 days by caesarian section due to severe intrauterine growth restriction. A live male infant was born with apgar score (appearance, pulse, gesture, activity and rate of breathing) 6 at 1 minute and 8 at 5 minutes and excellent progress the following days. She recovered from the caesarian section uneventfully and is currently following her treatment. Hippokratia 2006; 10(2): 88-89

Key words: Acute Leukemia, Pregnancy, Chemotherapy

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A.F.I. (amniotic fluid index) was 8, umbilical P.I: 1.588, thoracic aorta P.I: 1.85 and M.C.A. P.I.: 1.075.

We continued observations by performing CTG’S three times daily. On the 04/06/2005 she was 28 weeks and 4 days. Her CTG’S were abnormal with absent variability in three occasions. We have decided to proceed to emergency caesarian section. A live male infant was delivered, with apgar score 6 in 1 minute and 8 in 5 minutes, weighting 1070grs. The infant was transferred to the neonatal unit and had excellent recovery and progress the following days. The placenta was preserved for stem cells recovery. The mother pre-operatively had Hb: 11.8 PLT: 96,000 and WBC: 2,700 and was transfused in theatre with two units of red packed cells and 10 units of platelets. Her recovery from the operation was uneventful and she is currently following her treatment in the hematology unit.

Discussion

The combination of acute leukemia and pregnancy is infrequent. It is estimated to occur in less than 1 in 75000 pregnancies. Acute leukemia represents about 90% of leukemia coexisting with pregnancy. Acute myeloid leukemia accounts for about 60% and acute lymphoblastic leukemia for about 30% of cases. More than 75% of the cases are diagnosed after the first trimester1,2.

In more recent times there is an improved survival rate with these malignancies, and in three fourths of women who develop acute leukemia during pregnancy, remission can usually be induced after chemotherapy. Thus, maternal and fetal outcomes have improved substantially in the recent years. There are numerous reports of successful pregnancies in patients aggressively treated with combination chemotherapy for acute leukemia3,4. Acute leukemia and it's therapy are associated with an increase in stillbirths about 15%, prematurity 50%, and growth restriction5. No serious long-term effects of in utero exposure to chemotherapy have been reported6. Despite being improved, perinatal outcomes are generally poor for leukemic women.

There is no evidence that pregnancy has a deleterious effect on leukemia, so in these cases termination is not recommended to improve the prognosis, but it is a consideration in early pregnancy to avoid teratogenesis from chemotherapy. In general, multi-agent chemotherapy is given as soon as the diagnosis of leukemia is established, even if it is in the first trimester7.

Significant complications in pregnancy that include infection and hemorrhage should be anticipated at the time of delivery in women with active disease. Manifestations include anemia, neutropenia and thrombocytopenia. Vaginal delivery is preferable, and caesarian section is reserved for obstetrical indications only.

References