

sickling of red blood cells in sickle cell disease.^[2] It has an important role in the treatment of chronic myeloproliferative disorders especially in polycythemia vera and essential thrombocytosis.

In animal studies, teratogenicity and embryotoxicity of hydroxyurea have been described, but there are no adequate and well-controlled studies described in pregnant women.^[3] We hereby report the outcome of pregnancy in a case of essential thrombocytosis treated with hydroxyurea. A 42-year-old woman was diagnosed with essential thrombocytosis in 2005 when she presented with a spontaneous splenic rupture and thrombocytosis (platelet count = 1300,000/ μ l) and underwent a splenectomy. The diagnosis of essential thrombocytosis was established based on splenomegaly, thrombocytosis, bone marrow aspiration, and trephine biopsy findings in the absence of elevated markers of inflammation and other causes of thrombocytosis. She was treated with hydroxyurea 1.5 g daily and aspirin (ASA) 80 mg daily. Her hematologist advised her on the appropriate contraceptive measures while on hydroxyurea. Hailing from a small village she did not have regular follow ups and had an unplanned pregnancy while on hydroxyurea. She followed up with her physician during the fifth month of her pregnancy. Hydroxyurea was ceased and she was referred for a specialist opinion for termination of pregnancy. The patient, however, decided to continue with the pregnancy.

On admission, laboratory findings are included: WBC = 14,500/ μ l, Hb = 13.9 g/dl, MCV = 99.3 fl, platelet count = 1026,000/ μ l. She had normal vaginal delivery and the newborn was a term 2.7 kg male baby with normal appearance and an apgar score of 8–9. In this case, of essential thrombocytosis exposure to hydroxyurea in the first and second trimester did not result in an adverse fetal outcome.

In 2001, Thauvin-Robinet *et al.*, reported outcome of pregnancy with hydroxyurea in 31 cases (sickle cell disease, essential thrombocytosis, chronic myelogenous leukemia (CML) and chronic myeloid splenomegaly). In their study, exposure to hydroxyurea (HU) had been occurred in first trimester of pregnancy in 22/31 patients, during first and second trimester in 2/31 patients, in third trimester in 2/31 cases and during whole pregnancy period in 3/31 of cases. In 2/31 cases, the exact period of exposure was unknown. The hydroxyurea dosage was 0.5–6 g daily. They did not see any major malformation in their case series with exposure to hydroxyurea, but they found a significant rate of intrauterine growth retardation (IUGR), fetal death, and prematurity. They concluded that exposure

Successful outcome of pregnancy in a case of essential thrombocytosis treated with hydroxyurea

Sir,

Hydroxyurea is an oral antineoplastic agent. Hydroxyurea inhibits ribonucleotide reductase enzyme and decreases production of deoxyribonucleotides which are used for DNA synthesis and repair.^[1] Hydroxyurea increases the level of fetal hemoglobin and decreases

with hydroxyurea should never be an indication for termination of pregnancy, but they recommended a careful follow up with physical, biological and sonographic examination and fetal chromosomal analysis.^[4] Fadilah *et al.*, have reported that treatment of CML during pregnancy with hydroxyurea, which was started in 27th week of pregnancy had no adverse effect on maternal and fetal health.^[5]

Although, there are reports regarding reproductive and developmental toxicity of hydroxyurea in experimental animals,^[6] but only a few reports exist regarding safety of hydroxyurea in pregnant females. In this case of essential thrombocytosis, exposure to hydroxyurea during first and second trimester of pregnancy did not have teratogenic effect on the fetus. However, more cases should be studied before a definite conclusion is to be made.

We recommend appropriate contraceptive measures for females of child-bearing age on hydroxyurea. Women who have an unplanned pregnancy on hydroxyurea should stop hydroxyurea and inform their physicians in time to take decision about pregnancy termination. Hematologists should consider early chromosomal analysis of fetus and serial ultrasonography and pregnancy termination only for selected pregnancies with exposure to hydroxyurea.

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Quick Response Code: 	Website: www.indianjancer.com
	DOI: 10.4103/0019-509X.82898
	PMID: 21768686