Outcomes and Complications in Pregnant Patients With Ph-Negative Myeloproliferative Neoplasms

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Introduction

Up to 20% of patients with Ph-negative myeloproliferative neoplasms (MPN), in particular essential thrombocythemia (ET) and polycythemia vera (PV), are of reproductive age. Planning pregnancy and having healthy children remains relevant for young women with MPN.

Objectives

To characterize the outcomes of pregnant women with Ph-negative MPN and to identify the main complications during pregnancy.

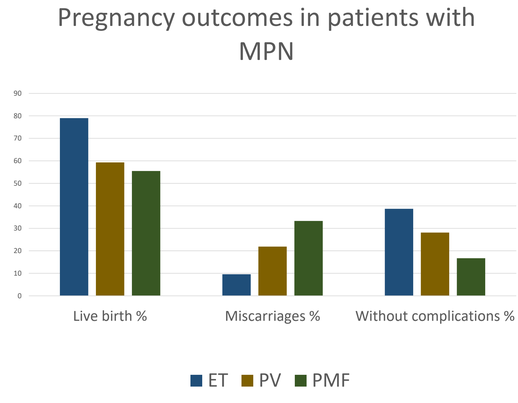
Methods

The study included women with an established diagnosis of Ph-negative MPN with pregnancy during the disease, who were observed at the Moscow National Medical Research Center for Hematology from 2014 to 2024. Data was collected on 85 patients diagnosed with Ph-negative MPN with 112 pregnancies.

Results

Of the 85 patients, 52 patients with 62 pregnancies were diagnosed with ET, 23 PV patients with 32 pregnancies, and 10 patients with a diagnosis of primary myelofibrosis (PMF) with 18 pregnancies. In ET, the age of pregnant women was often below 30 years (40% of pregnancies), in PV and PMF, almost half of the pregnant patients were at the age of 31 to 35 years (46.8% and 44.5% of pregnancies, respectively). In the MPN group, 38.4% of patients received interferon-alpha (INF-α), low-molecular-weight heparin (LMWH), and aspirin together during pregnancy. Childbirth rate was 69.7% (45 [40.1%] vaginal birth and 33 [29.5%] C-section

Miscarriages were observed in 28 (25%) pregnancies. With ET, miscarriages occurred less frequently than with PV and PMF (ET, 9.6%; PV, 21.9%; PMF, 33.3%). With ET, PV, and PMF, respectively, 79%, 59.3%, and 55.5% of pregnancies resulted in childbirth. The most common complications of pregnancy and childbirth with Ph-negative MPN were threatened miscarriage in the first trimester (13.4%), premature birth (9.8%), threatened preterm labor in the second and third trimesters (6.2%), and bleeding (6.5%). Perinatal fetal death was observed in four pregnancies, three of them in patients with PV. Of the pregnancies, 32.1% proceeded without complications (ET, 38.7%; PV, 28.1%; PMF, 16.7%).



Summary

Pregnancies with multiple risk factors are at higher risk of miscarriage and pregnancy complications. According to our preliminary data, pregnancy proceeds better and there are fewer complications during pregnancy in patients with ET.