ASH Highlights and Commentary: Myeloid Malignancies

Viviana Perez, APRN, FNP-C, of Moffitt Cancer Center, considers real-world outcomes presented at the 2024 ASH Annual Meeting of momelotinib, a JAK1/JAK2/ACVR1 inhibitor that has shown promise in treating myelofibrosis in patients with anemia.

Abstract 2430

Real-World Outcomes in Patients with Myelofibrosis Treated with Momelotinib in the Community Oncology Setting

Luke Fletcher, Nicole Niehoff, PhD, MPH, Sneha Sura, Tom Liu, MS, Karen Todoroff, William Zhang, MSc, and Ira Zackon, MD

Visit https://doi.org/10.1182/blood-2024-199834 for a complete list of affiliations and full graphics.

A real-world study has provided insights into the use of momelotinib (Ojjaara), the first JAK1/JAK2/ACVR1 inhibitor approved for patients with intermediate- or high-risk myelofibrosis (MF) and anemia. This retrospective cohort study, using data from the US Oncology Network iKnowMed electronic health records, is the first of its kind evaluating the treatment in a real-world community oncology setting.

BACKGROUND

Myelofibrosis is a rare and progressive hematologic malignancy with hallmarks such as anemia, thrombocytopenia, splenomegaly, and constitutional symptoms. While JAK inhibitors such as ruxolitinib and fedratinib have been used to reduce spleen size and symptom burden, they do not treat or may exacerbate anemia. Momelotinib was approved in September 2023 and was associated with anemia-related benefits, including increased mean hemoglobin levels and transfusion independence rates, as well as spleen and symptom improvements in both JAK inhibitor–naive and –experienced patients with MF.

STUDY OVERVIEW

Out of 4,019 patients diagnosed with MF, 1,422 were diagnosed with subsequent anemia. Of these, 49 patients received momelotinib and met inclusion criteria. The study focused on evaluating changes in hemoglobin levels, platelet counts, and time to improvement after momelotinib treatment.

PATIENT DEMOGRAPHICS AND BASELINE CHARACTERISTICS

The median age at anemia diagnosis was 72 years (IQR = 66-78), and 61.2% of the patients were female. The majority (87.8%) had previously received JAK inhibitors. The median time from MF diagnosis to anemia onset was 5.3 months, with 79.6% who had moderate anemia (hemoglobin 8 to < 10 g/dL), and 20.4% had severe anemia (hemoglobin < 8 g/dL). Most patients (83.7%) started momelotinib at the full 200-mg daily dose.

KEY FINDINGS

The baseline median hemoglobin was 8.2 g/dL. After 3 months of momelotinib treatment, median levels rose to 9.9 g/dL, with further improvement

J Adv Pract Oncol 2025;16(suppl 1):11–12
https://doi.org/10.6004/jadpro.2025.16.2.5

to 10.2 g/dL observed after 4 months. 40.8% of patients experienced a hemoglobin increase of ≥ 1 g/dL, with a median time to improvement of 18.3 weeks (95% CI = 9.9 weeks to not reached). Median platelet counts also improved, increasing from 194 × 10^9/L at baseline to 242 × 10^9/L after 3 months of treatment.

CONCLUSION

This real-world study of momelotinib shows its potential to improve anemia and thrombocytopenia in MF patients, particularly those previously treated with JAK inhibitors. The findings also support momelotinib's use in community oncology settings.

Perspectives for the Advanced Practitioner:

Viviana Perez, APRN, FNP-C
Moffitt Cancer Center

Patients with myelofibrosis (MF) suffer from thrombocytopenia, anemia, splenomegaly, and other constitutional symptoms. Treatment with JAK inhibitors has had positive effects on spleen size and symptom burden. However, JAK inhibitors may exacerbate anemia.

Momelotinib, which is a JAK1/JAK2/ACVR1 inhibitor, is the first and only treatment indicated for patients with immediate or high-risk MF and anemia. Momelotinib can be prescribed for both JAK inhibitor naive patients or patients with prior exposure to JAK inhibitors.

In this large study, they included adult patients with either primary or secondary MF who received treatment with momelotinib over 8 months. Anemia was classified as a hemoglobin level of less than 10 g/dL. The improvement of hemoglobin was measured in 3-month intervals. The median age at anemia diagnosis was 72 years old. Most patients initiated treatment with momelotinib at 200 mg daily, which is the full dose. The majority of patients in this study (79.6%) had hemoglobin levels between 8 to 10 g/dL. It was discovered that hemoglobin levels improved by 1 g/dL and that platelet counts also improved in 41% of patients.

Implications for the Advanced Practitioner

Treating anemia that is exacerbated by MF with momelotinib seems very promising, especially since this drug works for both patients who have been exposed to JAK inhibitors and JAK inhibitor-naive patients. It is particularly encouraging to have a medication on the market that not only targets MF but also may effectively manage anemia in this patient population. This is also exciting for the patient, as this treatment may lead to fewer blood transfusions, which means less time in clinic and more time at home.

Disclosure: Ms. Perez has nothing to disclose.