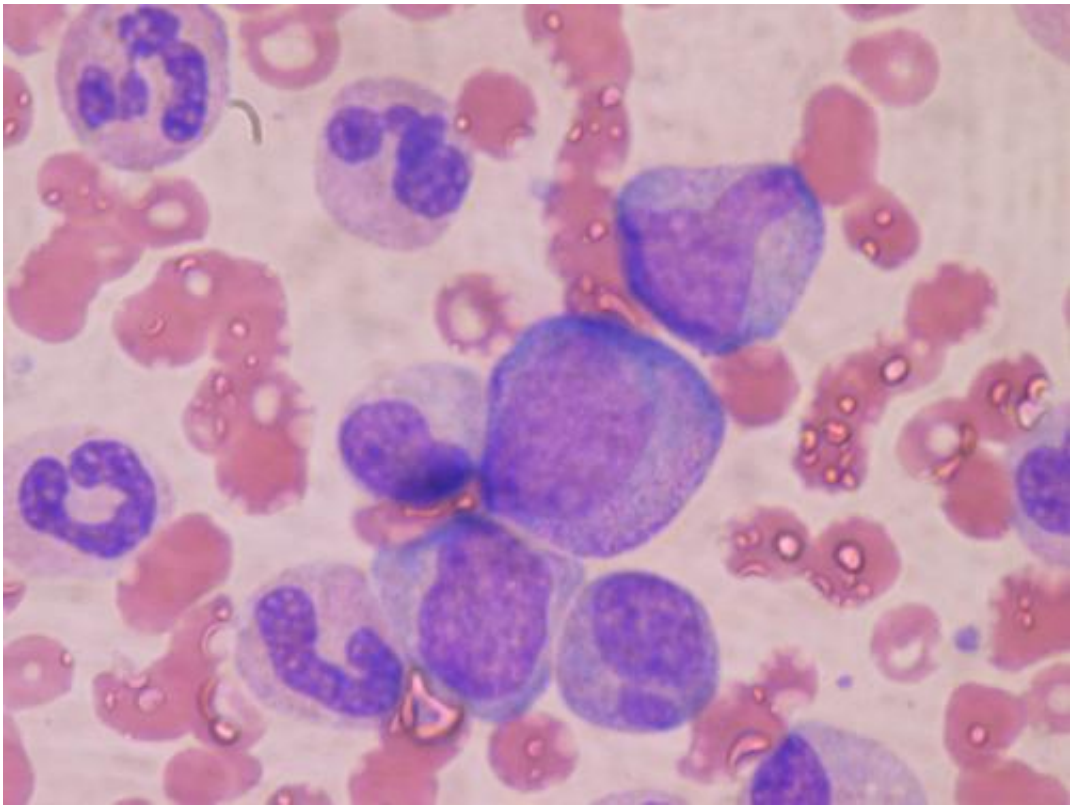
Oral pill improves care of patients with bone marrow cancer: Study

June 7 2022



Hematopoietic precursor cells: promyelocyte in the center, two metamyelocytes next to it and band cells from a bone marrow aspirate. Credit: Bobjgalindo/Wikipedia

Momelotinib, an oral pill taken once a day, significantly improved outcomes of patients treated for myelofibrosis (MF), a rare but fatal bone marrow cancer, researchers reported June 7. Ruben Mesa, MD,

FACP, executive director of the Mays Cancer Center, home to UT Health San Antonio MD Anderson Cancer Center, presented results of the MOMENTUM phase 3 randomized study, which evaluated momelotinib against a second medication, danazol, in symptomatic and anemic MF patients previously treated with standard-of-care JAK inhibitor therapy.

Dr. Mesa, co-lead principal investigator of the study, announced the findings in Chicago at the Annual Meeting of the American Society of Clinical Oncology (ASCO). MOMENTUM enrolled 195 MF patients in 21 countries.

Need

In myelofibrosis, scar tissue forms in the bone marrow and hinders the body's ability to produce healthy blood cells. Anemia, a lack of red blood cells to carry oxygen throughout the body, is observed in virtually all MF patients and negatively impacts survival, Dr. Mesa said.

"A third of the patients have anemia up front, and most patients will develop it over the course of their disease," Dr. Mesa said. "For patients with severe anemia, survival is shortened to about two years. Even with mild anemia, the median survival is 4.9 years. A drug to treat anemia in these patients has been urgently needed."

Without anemia, median survival with MF is closer to eight years, he said.

Myelofibrosis features abnormal signaling of JAK proteins and excessive activation of another protein, ACVR1. Pioneering MF drugs developed over the last decade, such as ruxolitinib, inhibit the harmful JAK signaling, whereas momelotinib is the first drug that inhibits both JAK and ACVR1, Dr. Mesa said.

"It has JAK1, JAK2 and ACVR1 inhibitors in one drug and addresses chronic inflammation due to the hyperactivation of ACVR1 as a consequence of the disease," Dr. Mesa said.

Findings

Of the enrolled participants, 130 received momelotinib and 65 danazol. Participants did not know until after 24 weeks which drug they received, and those in the danazol group were allowed to cross over to momelotinib at that time.

In the momelotinib group:

- All prespecified primary and key secondary endpoints were met.
- Significant improvements in symptoms, spleen size and anemia measures were observed.
- Favorable safety and a trend toward improved overall survival were documented.
- Participants required fewer transfusions to replace red blood cells and evidenced better oxygen-carrying hemoglobin levels.

"The results were compelling," Dr. Mesa said. "The study enrolled participants entirely during the COVID time frame, which was remarkable. Momelotinib met all primary and secondary endpoints and within the short span of six months, there was a trend toward overall survival benefit, which is also remarkable."

"Findings support the future use of momelotinib as an effective treatment in MF patients, especially in those with anemia," Dr. Mesa concluded.

More information: Conference: conferences.asco.org/am/attend

Provided by University of Texas Health Science Center at San Antonio