PV and ET Patients Wanted for Clinical Trials

JAK2 Inhibitor as New Therapy for Patients with Polycythemia Vera and Essential Thrombocythemia

Classic Philadelphia chromosome-negative myeloproliferative diseases (MPD) include Polycythemia Vera (PV), Essential Thrombocythemia (ET), and primary myelofibrosis (MF). Several independent groups described 3 years ago a novel mutation in the gene encoding the cytoplasmic Janus kinase 2 (JAK2) in patients with MPD. This mutation is present in 50% of ET and MF Patients, and 97% of PV patients, and makes the JAK2 protein active all the time. JAK2 is an important protein inside the cell, as it transmits signals for cells to grow. The JAK2 protein may be a major reason for the existence and progression of these diseases, and JAK2 inhibitors might positively affect the disease.

Several clinical trials of JAK2 inhibitors are currently under way for patients with MF. Phase I/II study of the oral JAK2 inhibitor INCB018424 for patients with MF has accrued more than 100 patients so far and showed exemplary efficacy in reducing enlarged spleen/liver, reducing elevated white cells and platelets, and improving patients’ quality of life, regardless of the presence of JAK2 mutation, with limited non-hematologic side-effects. Based on these encouraging results the study of INCB018424 has just been open to patients with PV or ET.

Dr. Srdan Verstovsek is the Leukemia Department’s MPD Program Leader. He can be reached at sverstov@mdanderson.org or 713-745-3429. For additional information about JAK2 inhibitors (including the eligibility criteria for participation in clinical studies), and all other available studies for MPD at M.D. Anderson Cancer Center, visit our website at http://www.mdanderson.org/diseases/mpd and click on “Clinical Trials” and “associated trial number”.

A Phase 2, open label, dose regimen ranging clinical study to determine the safety and efficacy of INCB018424 in patients with advanced polycythemia vera or essential thrombocythemia refractory to hydroxyurea.

Selected Inclusion Criteria:

- Patients with PV or ET irrespective of JAK2 mutation status.
- Patients should have diseases refractory to hydroxyurea or for whom treatment with hydroxyurea is contraindicated (or patients are intolerant to hydroxyurea) as determined by the treating physician.
- Required baseline laboratory data include: a. Hct > 45% for PV or phlebotomy required two times in prior six months with at least one
occurrence in prior three months b. Platelet count \( \geq 125 \times 10^9/L \) for PV patients c. Platelet count \( > 650 \times 10^9/L \) for ET unless receiving treatment d. Absolute neutrophil count (ANC) \( \geq 1.2 \times 10^9/L \) for both patient groups.

**Selected Exclusion Criteria:**

- Use of interferon alpha or anagrelide within 7 days or hydroxyurea within 1 day of enrollment. All other cytoreductive therapies for PV or ET or investigational medication must be discontinued within 28 days of enrollment.
- Patients receiving therapy with intermediate high dose steroids greater than the equivalent of 10 mg prednisone per day.
- Patients diagnosed with another malignancy unless the malignancy was cervical intraepithelial neoplasia or basal or squamous cell skin cancer and the patient has been disease free for > 3 years unless approved by the Sponsor.
- Presence of acute active infection requiring antimicrobials.
- Incomplete recovery from any prior surgical procedures or had surgery within 4 weeks prior to study entry.