Characterization of JAK2 V617F Allele Burden in Advanced Myelofibrosis (MF) Patients: No Change in V617F:WT JAK2 Ratio in Patients with High Allele Burdens Despite Profound Clinical Improvement Following Treatment with the JAK Inhibitor INCB018424

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Abstract

Background

- JAK2 V617F is the most frequent genetic mutation in Philadelphia chromosome-negative MPDs.
- JAK2 V617F-positive MF patients have a higher clinical severity compared to JAK2 V617F-negative MF patients.
- JAK2 V617F allele burden correlates with disease severity in MF patients.

Objectives

- Evaluate JAK2 V617F allele burden in primary MF (JFM) and post-PV/ET MF patients enrolled in study INCB18424-251.
- Compare peripheral blood and bone marrow JAK2 V617F allele burdens.
- Correlate clinical signs and symptoms with baseline JAK2 V617F allele burdens.
- Evaluate changes in JAK2 V617F allele burden over time with INCB018424 treatment in MF.
- Evaluate the relationship between changes in V617F allele burden and the magnitude of clinical improvement in MF patients treated with INCB018424.

Methods

- INCB18424-251: Baseline JAK2 V617F Allele Burden by MF Subgroups.
- INCB18424-251: Distribution of Baseline V617F Allele Burden in MF Subgroups.
- INCB18424-251: Baseline JAK2 V617F Allele Burden and Nutritional Status.

Clinical Responses in Study INCB18424-251

- Clinical correlates of V617F allele burden observed in study INCB018424-251.
- JAK2 V617F allele burden decreases in both JAK2 V617F-positive and JAK2 V617F-negative MF patients.

Summary and Conclusions

- JAK2 V617F allele burden decreases in both JAK2 V617F-positive and JAK2 V617F-negative MF patients.
- INCB018424 therapy results in significant clinical benefits regardless of the magnitude of V617F allele burden decrease.
- INCB018424 therapy results in significant clinical benefits in both JAK2 V617F-positive and JAK2 V617F-negative MF patients.

References