



## The 65th ASH Annual Meeting Abstracts

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## 634.MYELOPROLIFERATIVE SYNDROMES: CLINICAL AND EPIDEMIOLOGICAL

**Ruxolitinib or Interferon- $\alpha$  Treatment As a Protective Strategy for Patients with Philadelphia-Negative Myeloproliferative Neoplasms (MPN) during the COVID-19 Pandemic**

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**Background:** Both myeloproliferative neoplasms (MPNs) and coronavirus disease 2019 (COVID-19) are characterized by systemic inflammation and with intrinsic thrombotic risk. Series of studies found that ruxolitinib treatment was efficacy for COVID-19 in patients with hyperinflammation, and interferon- $\alpha$  as the innate immune system rapidly to combat viral infections, has been considered a potential therapeutic strategy to treat COVID-19 disease. However, ruxolitinib or interferon- $\alpha$  treatment with response outcomes for MPN patients were still unidentified.

**Patients and methods :** We prospectively analyzed the outcome of ruxolitinib (n=175) or interferon- $\alpha$  (n=165) treatment group versus other available therapy (n=478) group for MPN patients during the COVID-19 Pandemic (from May, 2020, to December, 2022). Outcomes were the rate of thrombosis, bleeding, acute respiratory distress syndrome (ARDS) and death.

**Results:** There were no difference between ruxolitinib and interferon- $\alpha$  treatment group in thrombosis rate, bleeding, the rate of ARDS and death. Thrombosis occurred lower frequently in patients treated with ruxolitinib or interferon- $\alpha$  than other available therapy group (1.1% vs 1.8% vs 5.6%,  $p = 0.004$ ), rates of bleeding (1.7% vs 1.8% vs 2.0%,  $p = 0.93$ ), rates of ARDS (1.1% vs 1.8% vs 4.2%,  $p = 0.048$ ), and death (6.8% vs 3.0% vs 6.9%,  $p = 0.22$ ) of COVID-19 disease were similar.

**Conclusion:** Ruxolitinib or interferon- $\alpha$  therapy was associated with lower thrombosis event and lower rate of ARDS for MPN patients in COVID-19 Pandemic.

**Keywords:** MPN, Ruxolitinib, thrombosis event, interferon- $\alpha$

**Disclosures** No relevant conflicts of interest to declare.

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