MODIFIED DOSE ESCALATION OF RUXOLITINIB: A FEASIBLE THERAPEUTIC APPROACH IN THE MANAGEMENT OF MYELOFIBROSIS

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Myelofibrosis (MF) is a Philadelphia chromosome negative myeloproliferative neoplasm (MPN) characterized by increased fibrosis in the bone marrow (BM) stroma, extramedullary hematopoiesis and debilitating constitutional symptoms. Prior to the introduction of JAK inhibitors, available treatment modalities usually result in non-sustained clinical responses in terms of reduction of splenomegaly or improvement in constitutional symptoms. Ruxolitinib, is a JAK1/2 inhibitor approved for the treatment of intermediate and high risk MF. The recommended starting doses for ruxolitinib, are 20 mg PO BID, 15 mg PO BID and 5 mg PO BID if platelet (PLT) counts are ≥200 x10⁹/L, ≥100 to 200 x10⁹/L, and ≤50x10⁹/L respectively. However, grade 1–2 anemia (45%), thrombocytopenia (12.9%), fatigue (25%) and diarrhea (23%) are most common adverse events using standard regimens which resulted in dose adjustment in more than 70% of treated patients. Although hematological side effects are generally expected during early phases of ruxolitinib therapy and reversible in most cases, a therapeutic approach that can avoid myelosuppression and other non-hematologic side effects while still providing adequate clinical response is warranted. We retrospectively assessed the clinical outcomes of MF patients treated with ruxolitinib using a dose escalation (DE) starting at 5 mg QOO approach and compared outcomes with another group of MF patients previously treated with standard regimens (SR, 15 or 20 mg BID).

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