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Myelofibrosis Treatment Beyond Ruxolitinib: A Single-Center Experience with Momelotinib and Pacritinib

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INTRODUCTION

The FDA recently approved momelotinib (MOM) for myelofibrosis (MF) with anemia, and pacritinib (PAC) for MF with thrombocytopenia, based on their superiority compared to best available care, including ruxolitinib. Real-world data is needed to understand their outcomes and sequencing strategies with other JAK inhibitors.

METHOD

We reviewed patients with MF who were prescribed MOM/PAC from 01/2022 – 05/2024 at the Medical University of South Carolina. Outcomes included:

- Reason for initiation
- Duration on MOM/PAC
- Unplanned dose reductions
- Reasons for discontinuation
- Change in transfusion requirements.

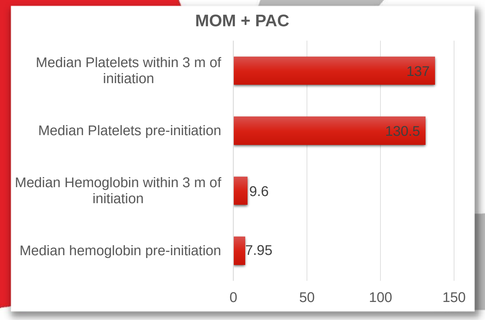
RESULTS

28 patients were prescribed MOM (n=13) or PAC (n=15). Median age at the start of MOM/PAC was 72.5 years (range, 45-87 years). Fifteen patients (53.6%) were female, and thirteen (46.4%) had secondary MF. Thirteen patients (46.4%) had at least one high-risk mutation (ASXL1, SRSF2, IDH1/2, EZH2, U2AF1 Q157). Twenty-two patients (78.5%) received a prior JAK inhibitor: ruxolitinib (n=20) or fedratinib (n=2). The median ruxolitinib dose before MOM/PAC was 10 mg BID and the median dose of fedratinib was 400 mg daily. The most common reason for starting or switching to MOM/PAC was cytopenias (n=19).

The median duration on MOM/PAC was 5.1 months and 16 patients remained on treatment at the last follow-up. The median hemoglobin 3 months after starting MOM/PAC was 9.6 g/dL, compared to 8.9 g/dL at baseline (p=0.263). The median platelet count 3 months after starting MOM/PAC was 137 x 109/L compared to 130 x 109/L at baseline (p=0.664). At least 1 red blood cell transfusion was required by 15 of 28 patients (53.6%) in the 3 months before starting PAC/MOM, compared with 7 of 21 patients (33.3%) in the 3 months after. All but one patient started MOM/PAC at the recommended dose and frequency.

The most common adverse effect was diarrhea (n=8), with one patient developing grade 3 diarrhea. Five patients required dose reductions, one for GI toxicity. Common reasons for stopping MOM/PAC were adverse events (n=3, AKI, diarrhea, rash) and allogeneic transplantation (n=3).

	MOM	PAC	MOM + PAC
Number of patients	13	15	28
Median age at switch (range)	75 (65-87)	68 (45-87)	72.5 (45-87)
Female sex	7	8	15
Prior PV	1	6	7
Pror ET	4	2	6
Number of prior JAKi therapy			
0	3	3	6
1	9	11	20
2	1	1	2
Mean time on prior JAKi (months)			
	18.3	20.3	19.3
Last JAKi used before switching			
Ruxolitinib	9	11	20
Fedratinib	1	1	2
Median last hemoglobin	8.1	7.8	7.95
Median last platelets	252	64	130.5
Most recent cytogenetics			
Normal	7	10	17
Abnormal	6	5	11
Molecular			
JAK2+	10	9	19
CALR+	2	3	5
MPL+	1	3	4
High-Risk mutations (ASXL1, SRSF2, IDH1/2, EZH2, U2AF1 Q157)	6	7	13
Reason for switch or start			
Lack of response, cytopenia	3	1	4
Lack of response, adverse effect	1		1
Lack of response	1		1
Cytopenias	6	13	19
Adverse effect		1	1
Unclear	1		1
No of patients transfused within 3 months of switch or start	5	10	15
Dose reduction	1	4	5
Median 3-month Hemoglobin	9.55	9.15	9.6
Median 3-month Platelets	278	88	137
No of patients transfused during 3 months post-initiation			
	2	5	7
Stopped MOM/PAC	1	9	10
Reason for stopping MOM/PAC			
Adverse effect	1 (AKI)	2 (Rash, Diarrhea)	3
Lack of response / Progression of disease		2	2
Transformation to AML		1	1
Cytopenias		1	1
Going to Transplant		3	3
Median duration of MOM/PAC (months)			
	3.07	4.99	5.1
On MOM/PAC at Last Follow up			
	12	4	16



CONCLUSIONS

We observed trends toward decreased transfusion burden and improved hemoglobin in patients on MOM/PAC.

MOM/PAC were well tolerated in patients with cytopenic MF with only 10% treatment discontinuation due to toxicity.

CONTACT INFORMATION

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