

## Review Form 1.7

Journal Name:	<b>Journal of Advances in Medicine and Medical Research</b>
Manuscript Number:	<b>Ms_JAMMR_101836</b>
Title of the Manuscript:	<b>JAK2 V617F Mutation in Patients with Thrombosis</b>
Type of the Article	

### **General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journaljammr.com/index.php/JAMMR/editorial-policy> )

**Review Form 1.7**

**PART 1: Review Comments**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)																		
<p><b>Compulsory</b> REVISION comments</p> <p>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</p> <p>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</p> <p>3. <b>Is the abstract of the article comprehensive?</b></p> <p>4. <b>Are subsections and structure of the manuscript appropriate?</b></p> <p>5. <b>Do you think the manuscript is scientifically correct?</b></p> <p>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></p> <p><b><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></b></p>	<p>1. <b>The article miss the diagnostic workup for the patients.</b></p> <p>2. <b>The abstract covers the content of the article.</b></p> <p>3. <b>Subsections and structure are quite correct.</b></p> <p>4. <b>The manuscript is a repetition of many publication to this topic but fails in further elucidation.</b></p> <p>5. <b>See the citations.</b></p> <p><b>Deep venous thrombosis (DVT) is a complication of myeloproliferative neoplasms (MPN). From a haematological point of view represent the laboratory date of the patient cohort with thrombosis a underlying MPN, according to WHO Diagnostic Criteria.</b></p> <table border="1" data-bbox="1071 667 2160 1329"> <caption>Table 1. WHO Diagnostic Criteria for Essential Thrombocythemia and Prefibrotic or Early-Stage Myelofibrosis.*</caption> <thead> <tr> <th>Essential Thrombocythemia</th> <th>Prefibrotic or Early-Stage Myelofibrosis</th> </tr> </thead> <tbody> <tr> <td>Diagnosis requires all major criteria or the first three major criteria plus a minor criterion.</td> <td>Diagnosis requires all major criteria and at least one minor criterion.</td> </tr> <tr> <td><b>Major criteria</b></td> <td></td> </tr> <tr> <td>Platelet count <math>\geq 450,000</math> per cubic millimeter</td> <td>Megakaryocytic proliferation and atypia, without reticulin fibrosis <math>&gt;</math>grade 1, accompanied by increased, age-adjusted bone marrow cellularity, granulocytic proliferation, and in many cases decreased erythropoiesis</td> </tr> <tr> <td>Bone marrow biopsy showing proliferation mainly of the megakaryocytic lineage, with increased numbers of enlarged, mature megakaryocytes with hyperlobulated nuclei; no substantial increase or left shift in neutrophil granulopoiesis or erythropoiesis; in rare instances, minor (grade 1) increase in reticulin fibers</td> <td>Criteria for BCR-ABL1-positive chronic myeloid leukemia, polycythemia vera, essential thrombocythemia, myelodysplastic syndrome, or other myeloid neoplasm not met</td> </tr> <tr> <td>Criteria for BCR-ABL1-positive chronic myeloid leukemia, polycythemia vera, primary myelofibrosis, or other myeloid neoplasm not met</td> <td>JAK2 V617F, CALR, or MPL mutation or presence of another clonal marker or of minor reactive reticulin fibrosis in bone marrow†</td> </tr> <tr> <td>JAK2 V617F, CALR, or MPL mutation</td> <td></td> </tr> <tr> <td><b>Minor criteria</b></td> <td></td> </tr> <tr> <td>Presence of clonal marker or of evidence of reactive thrombocytosis</td> <td>Anemia not attributed to a coexisting condition Leukocytosis (<math>\geq 11,000</math> cells per cubic millimeter) Palpable splenomegaly Lactate dehydrogenase level above upper limit of normal of institutional reference range</td> </tr> </tbody> </table> <p>* Data are from Arber et al.<sup>7</sup></p> <p>† In the absence of any of the three major clonal mutations, a search for other mutations associated with myeloid neoplasms (e.g., ASXL1, EZH2, TET2, IDH1, IDH12, SRSF2, and SF3B1 mutations) may be helpful in determining the clonal nature of the disease. Minor (grade 1) reticulin fibrosis caused by infection is noteworthy, as are autoimmune disorders or other chronic inflammatory conditions, hairy-cell leukemia or other lymphoid neoplasms, metastatic cancer, or toxic (i.e., chronic) myelopathies.</p> <p>1. <b>A. Tefferi, A. Pardanani, Essential Thrombocythemia. <i>New England Journal of Medicine</i> 381, 2135-2144 (2019).</b></p> <p><b>A diagnostic work-up of the patients was not performed and further therapeutic options not mentioned.-The screening for the JakV617F mutation to elucidate a thrombotic event is abonded and only recommended for the diagnosis of an underlying MPN:</b></p> <p>2. <b>A. Tefferi, T. Barbui, Polycythemia vera and essential thrombocythemia: 2021 update on diagnosis, risk-stratification and management. <i>American Journal of Hematology</i> 95, 1599-1613 (2020).</b></p> <p>3. <b>P. Guglielmelli et al., Mutations and thrombosis in essential thrombocythemia. <i>Blood Cancer Journal</i> 11, 77 (2021).</b></p>	Essential Thrombocythemia	Prefibrotic or Early-Stage Myelofibrosis	Diagnosis requires all major criteria or the first three major criteria plus a minor criterion.	Diagnosis requires all major criteria and at least one minor criterion.	<b>Major criteria</b>		Platelet count $\geq 450,000$ per cubic millimeter	Megakaryocytic proliferation and atypia, without reticulin fibrosis $>$ grade 1, accompanied by increased, age-adjusted bone marrow cellularity, granulocytic proliferation, and in many cases decreased erythropoiesis	Bone marrow biopsy showing proliferation mainly of the megakaryocytic lineage, with increased numbers of enlarged, mature megakaryocytes with hyperlobulated nuclei; no substantial increase or left shift in neutrophil granulopoiesis or erythropoiesis; in rare instances, minor (grade 1) increase in reticulin fibers	Criteria for BCR-ABL1-positive chronic myeloid leukemia, polycythemia vera, essential thrombocythemia, myelodysplastic syndrome, or other myeloid neoplasm not met	Criteria for BCR-ABL1-positive chronic myeloid leukemia, polycythemia vera, primary myelofibrosis, or other myeloid neoplasm not met	JAK2 V617F, CALR, or MPL mutation or presence of another clonal marker or of minor reactive reticulin fibrosis in bone marrow†	JAK2 V617F, CALR, or MPL mutation		<b>Minor criteria</b>		Presence of clonal marker or of evidence of reactive thrombocytosis	Anemia not attributed to a coexisting condition Leukocytosis ( $\geq 11,000$ cells per cubic millimeter) Palpable splenomegaly Lactate dehydrogenase level above upper limit of normal of institutional reference range	
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<p><b>Minor</b> REVISION comments</p> <p>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></p>	<p>Yes</p>																			

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<b>Optional/General</b> comments	<b>See above</b>	
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**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

Name:	<b>Antonis Tsamaloukas</b>
Department, University & Country	<b>Germany</b>