ISSN(O): 2320-5407 | ISSN(P): 3107-4928

ISSN NO. 2320-5407

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Manuscript No.: IJAR-56484

Title: Pregnancy-related thrombotic microangiopathies: clinical characteristics, management and maternal outcomes in an obstetric intensive care unit

Recommendation:
Accept as it is .....
Accept after minor revision.....
Accept after major revision .....YES.....
Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality			✓	
Clarity		✓		
Significance		✓		

Reviewer Name: Dr. Dillip Kumar Mohapatra

Detailed Reviewer's Report

1. Overall Evaluation

This manuscript presents a **retrospective descriptive study of 103 patients** admitted with pregnancy-related thrombotic microangiopathies (TMA) in an obstetric intensive care unit. The study evaluates **epidemiological characteristics, clinical presentation, laboratory findings, therapeutic management, and maternal outcomes**. The topic is clinically relevant because pregnancy-associated TMA conditions such as **HELLP syndrome, atypical hemolytic uremic syndrome, thrombotic thrombocytopenic purpura, and acute fatty liver of pregnancy** are serious obstetric emergencies associated with high maternal morbidity and mortality.

The manuscript provides useful clinical data; however, **several methodological and presentation limitations require revision before publication**.

2. Strengths

1. **Clinically Relevant Topic**
   Pregnancy-related thrombotic microangiopathies are rare but life-threatening obstetric

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

complications, making the study highly relevant to maternal-fetal medicine and critical care.

2. Relatively Large Clinical Series

   The study includes 103 patients, which is a considerable sample size for a single-center ICU study on TMA in pregnancy.

3. Comprehensive Clinical Data

   The manuscript reports multiple aspects including:

   - epidemiological characteristics
   - clinical symptoms
   - laboratory findings
   - imaging results
   - therapeutic management
   - maternal outcomes

4. Real-World ICU Data

   Data from an obstetric intensive care unit provides valuable insight into the management of severe pregnancy-related complications.

5. Clear Presentation of Results

   The results section includes tables and percentages, making clinical findings relatively easy to understand.

3. Weaknesses

1. Limited Methodological Description

   The methods section lacks sufficient details regarding:

   - diagnostic criteria for each TMA condition
   - inclusion and exclusion criteria
   - ethical approval or institutional review board approval
   - patient selection process

2. Only Descriptive Statistics Used

   The study only uses descriptive statistics without inferential analysis. Comparative statistical analysis between diagnostic groups would strengthen the findings.

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

3. Insufficient Discussion of Differential Diagnosis
   Pregnancy-related TMA conditions often overlap clinically; however, the manuscript does not adequately explain how conditions such as HELLP syndrome, TTP, and aHUS were differentiated.
4. Limited Literature Comparison
   The discussion section provides minimal comparison with recent international studies.
5. Outdated References
   Several references are relatively old, with many published before 2010. More recent studies (last 5–8 years) should be incorporated.
6. Language and Formatting Issues
   Minor grammatical errors and formatting inconsistencies are present in the manuscript.
7. Lack of Neonatal Outcome Data
   The study focuses only on maternal outcomes, whereas neonatal outcomes would significantly enhance the clinical relevance.

4. Significance of the Study

The study contributes to the existing literature by providing clinical experience from a tertiary care obstetric ICU in Morocco. It highlights:

- the predominance of HELLP syndrome among pregnancy-related TMAs
- the high rate of cesarean delivery
- the occurrence of acute kidney injury as the most frequent complication
- a maternal mortality rate of 6.18%

These findings emphasize the importance of early diagnosis, intensive monitoring, and multidisciplinary management.

5. Key Points

- Pregnancy-related thrombotic microangiopathies remain severe obstetric complications with significant maternal risk.

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

- HELLP syndrome accounted for nearly 80% of cases in the study population.
- Most cases occurred during the third trimester.
- Hypertension and proteinuria were common clinical findings.
- Acute kidney injury was the most frequent complication.
- The maternal mortality rate was 6.18%, highlighting the seriousness of these conditions.

6. Recommendations for Improvement

The authors should consider the following revisions:

1. Expand the Methods Section
    - Provide clear diagnostic criteria for HELLP, TTP, aHUS, and AFLP.
    - Include ethical approval and consent information.
2. Improve Statistical Analysis
    - Consider performing comparative analysis between different TMA subgroups.
    - Include measures such as confidence intervals or p-values where appropriate.
3. Strengthen the Discussion
    - Compare results with recent international studies.
    - Discuss reasons for differences in complication and mortality rates.
4. Update References
    - Add recent publications from 2018–2024 related to pregnancy-related TMA.
5. Include Neonatal Outcomes
    - Information such as birth weight, neonatal ICU admission, or perinatal mortality would increase clinical value.
6. Language Editing
    - Professional English editing is recommended to improve clarity and readability.

7. Final Recommendation

Decision: Major Revision

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

Although the study addresses an important clinical topic and includes a valuable patient cohort, methodological clarification, stronger statistical analysis, and improved discussion are required before the manuscript can be considered for publication.

Justification for Major Revision

1. Title Section

Lines 1–4

Issue

- The title is clear but lacks methodological detail.

Justification for revision

- The study design (retrospective ICU study) should be mentioned to improve transparency.

Suggested improvement

- "A retrospective study in an obstetric intensive care unit".

2. Introduction

Lines 7–9

Issue

- The definition of thrombotic microangiopathies is brief and lacks citation.

Reason for major revision

- A scientific definition should be supported by recent references to strengthen the introduction.

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

Lines 10–14

Issue

- The list of pregnancy-related TMAs is provided without explanation of diagnostic differences.

Reason for revision

- These diseases have overlapping features but different pathophysiology; brief differentiation should be included.

Lines 15–16

Issue

- Multiorgan dysfunction is mentioned but not supported with references.

Reason

- Literature citation is required to support these clinical claims.

Lines 17–19

Issue

- Epidemiological data (0.5–1% prevalence) is presented without citation.

Reason

- Epidemiological statements must be referenced.

Lines 20–21

Issue

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

- The statement about maternal morbidity and mortality is very general.

Reason

- Specific global statistics or reported mortality rates should be included.

Lines 22–24

Issue

- The research objective is stated but lacks specificity.

Reason

- The objective should clearly define:
- study population
- study design
- primary outcomes.

3. Methods

Lines 27–28

Issue

- Study design is mentioned as "retrospective descriptive study" but no methodological details are given.

Reason

- Major methodological information is missing.

Required additions

- inclusion criteria
- exclusion criteria
- case identification method.

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

Lines 29–33

Issue

- Study setting is provided but lacks description of hospital level or ICU capacity.

Reason

- Readers should understand whether it is a tertiary referral center.

Lines 34–35

Issue

- Study period is defined but no justification is provided.

Reason

- Authors should explain why this specific period was selected.

Lines 36–37

Issue

- The sample size (103 patients) is presented without explanation.

Reason

- It is unclear whether this represents:
- all ICU admissions
- or selected cases.

Line 38 (Diagnostic distribution)

Issue

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

- Diagnostic criteria for HELLP, TTP, aHUS, and AFLP are not described.

Reason

- These conditions require specific diagnostic criteria, such as:
- Mississippi classification for HELLP
- ADAMTS13 testing for TTP
- Swansea criteria for AFLP.

This is a major methodological limitation.

Lines 39–47

Issue

- Data collection variables are listed but methods are not explained.

Reason

- Authors must describe:
- how records were reviewed
- who extracted data
- whether standardized forms were used.

Lines 48–51

Issue

- Only descriptive statistics were used.

Reason

- The absence of inferential statistics limits the scientific value.

Recommended improvement

- Comparative analysis between diagnostic groups.

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

Missing Section

Major issue

- No ethical approval statement.

Reason

- Ethical clearance from an institutional review board is mandatory.

4. Results

Lines 55–62

Issue

- Epidemiological characteristics are described but no comparative analysis is provided.

Reason

- Results are purely descriptive.

Lines 63–68

Issue

- Gestational age is reported but distribution by diagnosis is missing.

Reason

- Different TMA conditions occur at different gestational ages.

Lines 69–74

Issue

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

- Prenatal follow-up data are presented but their clinical significance is not analyzed.

Lines 76–77

Issue

- Symptoms are listed without linking them to specific diagnoses.

Lines 78–79

Issue

- Hypertension and proteinuria are presented without specifying diagnostic subgroups.

Lines 81–85

Issue

- Laboratory findings are presented as means only.

Reason

- No standard deviation or median values are provided.

Lines 87–108

Issue

- Imaging findings are reported but clinical relevance is unclear.

Reason

- The indication for CT scans and ultrasound examinations should be explained.

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

Lines 111–128

Issue

- Treatment modalities are described but treatment protocols are not explained.

Example missing

- plasmapheresis for TTP
- eculizumab for aHUS.

Lines 130–141

Issue

- Complications are listed but risk factors are not analyzed.

Lines 142–143

Issue

- Maternal mortality is reported but causes of death are not described.

Reason

- This is essential for ICU studies.

5. Discussion

Lines 146–148

Issue

- Pathophysiology is briefly mentioned but not supported with references.

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

Lines 149–150

Issue

- HELLP prevalence is stated but comparison with multiple studies is lacking.

Lines 151–156

Issue

- Limited comparison with international literature.

Reason

- Discussion should cite recent studies.

Lines 157–160

Issue

- Biological findings and complications are described but deeper analysis is absent.

Lines 161–162

Issue

- Maternal mortality comparison is mentioned but supporting references are missing.

Lines 163–164

Issue

- Multidisciplinary management is emphasized but specific recommendations are not provided.

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

6. Conclusion

Lines 167–172

Issue

- Conclusion summarizes findings but lacks clinical implications and future research directions.

7. References

Lines 174–215

Major Issue

- Many references are outdated (1998–2010).

Reason

- Recent literature (last 5–10 years) should be added.

8. Summary of Major Issues Requiring Revision

Major revisions are necessary because of:

1. Missing diagnostic criteria for TMA conditions
2. Lack of ethical approval statement
3. Insufficient methodological description
4. Use of only descriptive statistics
5. Limited literature comparison in discussion
6. Outdated references
7. Missing neonatal outcome data
8. Lack of analysis of mortality causes

ISSN(O): 2320-5407 | ISSN(P): 3107-4928
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

9. Final Editorial Recommendation

Decision: Major Revision

The study addresses an important clinical topic and includes a valuable patient cohort; however, substantial improvements in methodology, statistical analysis, and discussion are required before the manuscript can be considered for publication.