

REVIEWER'S REPORT

Manuscript No.: IJAR-55954

Title: Comparative Evaluation of Patient Comfort and Procedural Ease in Ultrasound-Guided versus Conventional intra uterine insemination,

Recommendation:

Accept as it isYES.....

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

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

Reviewer Name: PROF. DR DILLIP KUMAR MOHAPATRA

Detailed Reviewer's Report

Title of the Manuscript:

Comparative Evaluation of Patient Comfort and Procedural Ease in Ultrasound-Guided Versus Conventional Intrauterine Insemination

1. Strengths of the Study

Relevant and Patient-Centered Topic

The study addresses an important yet under-explored aspect of fertility treatment—**patient comfort and clinician ease during IUI**—which is increasingly recognized as a key quality indicator in reproductive healthcare.

Prospective Study Design

The prospective cohort design enhances the reliability of data collection, particularly for subjective outcomes such as pain perception and procedural difficulty.

Clear Methodology and Standardization

The protocol for ovarian stimulation, timing of insemination, and semen preparation is well standardized, minimizing procedural variability between groups.

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Use of Validated Assessment Tool

Patient discomfort was assessed using the **Visual Analog Scale (VAS)**, a widely accepted and validated tool for pain assessment.

Comprehensive Procedural Parameters

In addition to pain scores, the study evaluates clinically relevant procedural indicators such as tenaculum use, number of attempts, bleeding, and procedure duration, offering a holistic assessment.

Statistical Analysis

Appropriate statistical tests (Student's t-test and Chi-square test) were applied, with clear reporting of p-values, strengthening the validity of the conclusions.

Consistency with Existing Literature

The findings are consistent with previously published randomized trials and meta-analyses, supporting the reproducibility and external validity of the results.

2. Weaknesses and Limitations

Single-Center Study

Being conducted at a single tertiary care center limits the generalizability of findings to other healthcare settings, particularly private clinics or rural centers.

Sample Size

Although adequate for detecting differences in pain scores, the sample size is relatively modest and may limit subgroup analyses.

Subjectivity of Pain Assessment

Despite using VAS, pain perception remains subjective and may be influenced by patient anxiety, prior experiences, or clinician interaction.

Lack of Blinding

Neither patients nor clinicians were blinded to the intervention, which could introduce observer or reporting bias, especially in clinician-rated ease.

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Pregnancy Outcomes Not Emphasized

While the study focuses on comfort and ease, inclusion or discussion of pregnancy rates would have strengthened the clinical relevance.

3. Scientific and Clinical Significance

This study adds meaningful evidence to the growing body of literature emphasizing **patient-centered outcomes in assisted reproductive techniques**. In low-resource and high-volume public healthcare settings—such as government fertility clinics in India—the findings are particularly relevant.

The demonstrated reduction in pain, lower need for cervical instrumentation, and improved procedural control suggest that **ultrasound-guided IUI can enhance both patient satisfaction and clinician confidence**, without compromising safety. These outcomes are important for improving compliance, reducing procedural anxiety, and enhancing overall quality of care in infertility management.

4. Key Points

Ultrasound-guided IUI significantly reduces patient pain compared to the conventional blind technique.

The need for tenaculum use and multiple catheterization attempts is lower with ultrasound guidance.

Although ultrasound-guided procedures take slightly longer, the improvement in comfort and procedural ease outweighs the increase in duration.

The study supports incorporating ultrasound guidance into routine IUI practice, particularly for patients with difficult cervical anatomy.

Further multicenter randomized controlled trials are recommended to evaluate cost-effectiveness, pregnancy outcomes, and long-term benefits.

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Overall Reviewer Comment

The manuscript is **scientifically sound**, methodologically appropriate, and clinically relevant. It provides valuable insight into patient comfort and procedural efficiency during IUI and supports the evolving paradigm of patient-centered reproductive care.