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-57426

Title: Comparative Analysis of Surgically Induced Astigmatism and Visual Outcomes: Manual SICS vs Phacoemulsification in Hard Nuclear Cataracts.

Recommendation:

Accept as it is .....

Accept after minor revision...

Accept after major revision .....

Do not accept (*Reasons below*) .....

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

Reviewer's ID: Dr. Sumathi

Detailed Reviewer's Report

1. **Phacoemulsification is the modern, gold-standard cataract surgery technique, using ultrasonic waves to emulsify and remove cloudy lenses through tiny (2–3 mm), self-sealing incisions. It offers rapid, often painless, outpatient treatment (10–15 minutes) with over 96% success rates, allowing for faster visual recovery compared to traditional surgery.**
2. **Phacoemulsification ("phaco") is the modern, standard cataract surgery technique that uses ultrasonic waves to emulsify (break up) a cloudy lens through a small 2-3mm incision. The fragmented lens is suctioned out, and a foldable intraocular lens (IOL) is inserted. Common synonyms include "small incision cataract surgery" or simply "cataract surgery"**
3. **Surgically induced astigmatism (SIA) is the change in corneal shape and astigmatism magnitude caused by incisions during eye surgery, most commonly phacoemulsification for cataracts. Modern, small, self-sealing incisions (typically <2.8mm) usually induce small, sometimes unpredictable amounts of astigmatism, typically**

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

averaging in the range of 0.25 to 1.00 D, depending on technique and location.

4. **A hard (dense) cataract is an advanced stage of cataract, often brunescent or black (grade 4-5), characterized by a dense, hardened nucleus that makes standard surgical removal challenging. These, which are often caused by untreated maturity or rapid progression, require specialized techniques, higher energy, and careful management to prevent complications like corneal endothelial cell loss or posterior capsule rupture.**
5. **Visual outcome refers to the final functional vision (acuity, field, or quality) measured after a medical intervention, surgery, or disease progression, typically assessed using standard charts, imaging, or functional tests. Key factors influencing these outcomes include pre-existing conditions, age, surgical techniques, and postoperative care.**
6. **Phacoemulsification of hard (grade 4+) nuclear cataracts requires high-level skill due to increased risks of corneal edema, zonular dialysis, and capsule rupture. Key techniques include, as detailed in this ASCRS review, deep-groove divide-and-conquer, vertical chop, and pre-chopping, requiring significant ultrasound power (CDE). Successful removal relies on maximizing space, creating a strong vacuum grip, and careful, deep nuclear manipulation to avoid damaging surrounding structures.**
7. **Phacoemulsification (Phaco) and Manual Small Incision Cataract Surgery (MSICS) both offer excellent, comparable long-term visual outcomes and high safety profiles. Phaco is the gold standard in developed nations for its precision, faster visual recovery, and less astigmatism. However, MSICS is often faster, more cost-effective, and ideal for advanced/hard cataracts, particularly in developing regions.**
8. **Key words are given excellent!**
9. **Abstract is understandable.**
10. **Significant points are given good.**
11. **In result part should be given tables with graphs for values.**
12. **Summary points must be included.**
13. **References are not sufficient. Can be added some more with discussion points.**
14. **References should be with alphabetical order.**

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

15. **After those changes good to publish in your journal**.