



ORIGINAL RESEARCH PAPER

Ophthalmology

COMPARISON OF TWO DIFFERENT TECHNIQUES OF NUCLEUS DELIVERY IN MANUAL SMALL INCISION CATARACT SURGERY (MSICS) AND ITS VISUAL OUTCOME

KEY WORDS:

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INTRODUCTION

An opacity in the lens or its capsule, whether developmental or acquired is called a cataract.1

Cataract is one of the leading causes of avoidable blindness in the world today and more so in developing countries such as India.2 Blindness is a major public health problem and is also associated with lower life expectancy.1

No method to halt the formation of a cataract has been shown to be effective.3

In 1990 an estimated 37 million people were blind worldwide,4. 40% of them because of cataract.5

Cataract prevalence increases with age. Cataract is a significant global problem of 21st century.6

The current 20 million people with severely reduced vision due to cataract will increase to 40 million by the year 2020.6

SICS

The surgical services need to be accessible, affordable and cost effective for good vision rehabilitation.5

manual small incision cataract surgery (SICS) is the best way of removing the large back log of cataract surgery in developing countries,

By its universal applicability, Short operating time, Cost effectiveness, Suture less incision, Lesser surgical complications, Short learning curve, Reduced post operative hospital stay and Early visual rehabilitation by giving near normal vision.

AIMS AND OBJECTIVES

Our study aims to choose the best method for nucleus delivery to help patients for better visual prognosis, by comparing two different techniques of nucleus delivery in manual small incision cataract surgery (MSICS) and its visual outcome.

MATERIALS AND METHODS

It is a Comparative study

Sample size:-

120 patients aged 40 to 90 years, with operable cataract were randomly assigned to receive either phacosandwich technique or irrigating vectis technique.

The patient is followed up at 1st post operative day, 1 week and 4 weeks after surgery and their visual acuity recorded

INCLUSION CRITERIA

- Patients with Aquired Cataract with age 40 years and above.

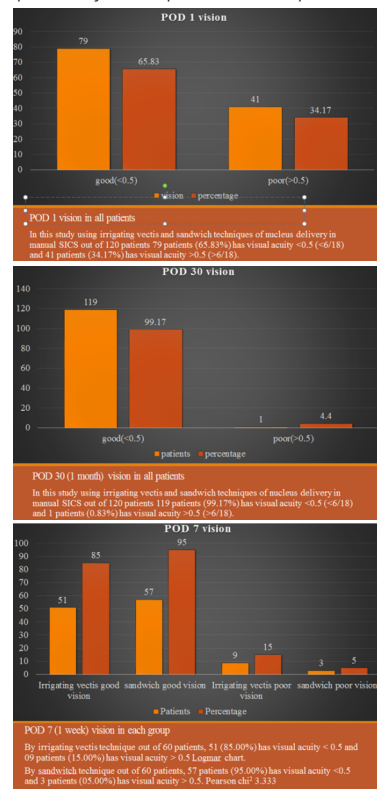
EXCLUSION CRITERIA

- Complicated cataracts, Ocular conditions like Corneal opacity, Glaucoma, Miotic pupil, Diabetic Retinopathy, Hypertensive Retinopathy, Pre-existing Macular Disorders, Cataract with Pseudoexfoliaton, Intraoperative complications like vitreous loss, Iris prolapse.

Statistical analysis done using Pearson chi2 test

RESULTS

This paper reports visual outcome using irrigating vectis technique and phacosandwich technique as a mode of nucleus delivery in manual small incision cataract surgery at 1 day , 1 week and 4 weeks post operatively in 120 patients with operable cataracts.



DISCUSSION

Vision	PRESENT STUDY (%)	VENKATESH et al (%)
Irrigating Vectis Good (<0.5)	100	99
Irrigating vectis Poor (>0.5)	0	01

The present study showed about 100% of cases with good visual acuity which correlates with study done by Venkatesh et al.

DISCUSSION

vision	PRESENT STUDY %	MRUNAL et al %
Sandwich Good (<0.5)	98.33	100
Sandwich Poor (>0.5)	1.67	00

The present study showed about 98% of cases with good visual acuity which correlates with study done by mrunal et al.

CONCLUSION

Sandwich and irrigating vectis are both safe and effective techniques for treatment of cataract patients in community eye care settings.

There was no significant difference between the two groups for visual outcome.

Most patients had quiet eye at 1 month post operative.

Proper selection of cases according to grade of cataract is of paramount importance to decide which technique of nucleus delivery is to be used.

By adjusting parameters like size of corneal incision, hydro dissection or debulking of nucleus before delivery of nucleus in different grades of hardness of cataract, a surgeon may choose any one technique in which he or she is comfortable.

REFERENCES

1. Sihota R, Tandon R. *Parsons' Diseases of the Eye*. Elsevier India; 2011.
2. Foster A, Johnson GJ. Magnitude and causes of blindness in the developing world. *International ophthalmology*. 1990 May 1;14(3):135-40.
3. Asbell PA, Dualan I, Mindel J, Brocks D, Ahmad M, Epstein S. Age-related cataract. *The Lancet*. 2005 Feb 12;365(9459):599-609.
4. Allen D, Vasavada A. Cataract and surgery for cataract. *Bmj*. 2006 Jul 13;333(7559):128-32.
5. Thylefors B, Negrel AD, Pararajasegaram R, Dadzie KY. Global data on blindness. *Bulletin of the world health organization*. 1995;73(1):115.
6. Brian G, Taylor H. Cataract blindness: challenges for the 21st century. *Bulletin of the World Health Organization*. 2001;79:249-56.
7. Venkatesh R, Das M, Prashanth S, Muralikrishnan R. Manual small incision cataract surgery in eyes with white cataracts. *Indian journal of ophthalmology*. 2005 Jul 1;53(3):173.
8. Patil MS, Balwir DN, Gupta A, Kataria I, Chatterjee S. A Clinical Study Comparing Different Techniques of Nucleus Delivery in Manual Small Incision Cataract Surgery. *MVP Journal of Medical Sciences*. 2015 Dec 1;2(2):67-75.