Archives of Clinical and Experimental Ophthalmology

Almousa. Arch Clin Exp Ophthalmol 2019; 1(1):12.

Short Communication

MSICS is a simple solution for a big problem

Mohamed. A. Almousa

Duba General Hospital, Saudi Arabia

*Author for correspondence:
Email: Almousa@gmail.com

Received date: December 25, 2019
Accepted date: December 30, 2019

What is MSICS?

Manual small-incision cataract surgery (MSICS) is a sutureless cataract surgery that has multiple advantages over traditional phacoemulsification and extracapsular cataract extraction (ECCE) procedures. SICS became the procedure of choice for international ophthalmology, where the microscopes and operating room can be more challenging, in addition to the more advanced pathology often seen. It is also useful when dealing with 'negro' – dense and mature cataracts. Every cataract surgeon has come across mature cataracts, the super hard lens that requires prolonged phacoemulsification time and increased energy delivery to deal with. And the subsequent post-operative corneal edema can lead to extended healing times and occasionally further corneal surgery, such as Descemet's membrane endothelial keratoplasty (DMEK), Descemet's stripping automated endothelial keratoplasty (DASEK) and penetrating keratoplasty (PKP).

To deal with this, most of us have learned to use a chopping technique with phacoemulsification, or to perform traditional ECCE with a large limbal incision, but this requires sutures and can induce large amounts of astigmatism. MSICS is an excellent procedure to perform, whether it is a planned surgery or a conversion procedure in cases where the lens is too dense to safely perform phacoemulsification, or when the capsule is broken, and the lens needs to be removed in one piece.

On the quality side, MSICS visual outcomes are excellent, with best-corrected visual acuity (VA) similar to phaco across a range of cataract densities with similar complication rates, though phaco holds the edge in uncorrected VA due to less astigmatism. However, MSICS is significantly faster, less expensive and requires far less equipment and consumables.

Generally, MSICS has a shorter learning curve than phaco, though visual outcomes are more dependent on surgeons' skills, so learning proper technique is essential. Steps to learn include constructing scleral tunnels to minimize astigmatism and ensure self-sealing, creating a larger capsulorhexis and complete hydrodissection and hydroexpression of the lens. Wherase Phaco requires learning phacodynamics, including application of power, vacuum and aspiration rate to maintain chamber stability. The learning curve is steeper, and risk of complications such as posterior capsule rupture is higher during training.

Overall, MSICS is faster, with correct vision similar to phaco, and safer for denser cataracts and complicated cases, while phaco is generally less painful and gives better uncorrected vision. Both have a place in the cataract surgeon's armamentarium. Several large studies have found MSICS procedures averaging about eight-to-nine minutes with many under six minutes, compared with 12-to-15 minutes for phaco. "So In a busy facility, a surgeon would be capable of handling higher volume with manual, sutureless, small-incision cataract surgery".

Conclusion

Every cataract surgeon must learn MSICS as it is a simple solution for a big problem.

Reference

1. EuroTimes of ophthalmology.
2. https://theophthalmologist.com/

Citation: Almousa MA. MSICS is a simple solution for a big problem. Arch Clin Exp Ophthalmol 2019;1(1):12.