

International Society of Manual Small Incision Cataract Surgeons



Editors: Dr. Ranjit S. Dhaliwal Dr. Purvi Bhagat

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From the Editors.....

Isn't it always supposed to be -

The Old Order Changeth, giving way to the New

And here am I, penning this editorial and trying to get the act together.....

Ophthalmology, like any other pursuit is a bed of roses - to bask in its fragrance and beauty, and to protect oneself from the thorns, one has to secure one's loincloth for the struggle ahead. A medical career never ends; it is a continuous cycle of learning, practicing, and teaching, on and on. Generals do not make armies, and are never direct appointments. The pride of an army is the soldier. The path to the top has, but a few short cuts.

My dear Gen – Next Friends do not despair, very few of the present day `Dons' had formal training, they trained themselves. How many of us have tried out the various techniques on goat eyes, available free in the market? Our best may not be a masterpiece. The tragedy is not in failing to achieve perfection, but in failing to do the best we can! We cannot allow anything to waver us from our calling. The surgeon is like a promontory into the sea, against which the waves beat and quiet themselves.

Cataract surgery is not, phacoemulsification alone. Manual Small Incision Cataract Surgery has a future and is there to stay, in that it provides with all the advantages of a small incision, few complications and little investment. To enumerate a few – Foldable implants may be used, temporal clear corneal cataract surgery may be performed and patients with Fuch's dystrophy and/or hard mature cataract can be taken up.

The INTERNATIONAL SOCIETY OF MANUAL SMALL INCISION CATARACT SURGEONS (ISMSICS) is an organization which is surgeon focused and surgeon driven – of, for and by cataract surgeons and an organization dedicated to research and development in the field of cataract surgery, especially Manual Small Incision Cataract Surgery. ISMSICS was born on August 30, 2005 in Mumbai. Dr. Amulya Sahu, at that time President of Bombay Ophthalmologist's Association became its founder President.

And as I take over, along with our Executive Editor dear Dr. Purvi Bhagat, this assignment to carry forward the legacy of **The ISMSICS Newsletter**, I must mention that it was heartening to know, how Vikram's work and deeds, touched and influenced the hearts of so many in such wondrous ways. The outreach and outpour of love and support of his friends, family and acquaintances in this time of need was testament to his life ethos, of service before self. We were indeed an indebted and a proud family, going around the 3rd Biennial World Conference on MSICS, CCC2019 Kolkata.

Vikram was there, everywhere.....

Irving Berlin

The song is ended, but the melody lingers on.....



At a personal level, we face the horizon of a new phase of life with the positivity & hope he had brought into our lives – stronger than ever before. With the **Astral Son** keeping a watchful eye on our well-being, the turmoil within notwithstanding, I fall back to spreading the charm of **MSICS** to prevent despair from taking over the better of me. I take this opportunity to present to you –

MSICS – Tips for beginners..... https://youtu.be/26oSoMKIrYE

Ranjit S. Dhaliwal, MD Editor, ISMSICS Newsletter Web Editor, ISMSICS Chairperson, Punjab Chapter ISMSICS

The Last Time!

"You only live once, but if you do it right, once is enough" – Mae West





My association with ISMSICS is just 3 years young and began with my Chairpersonship of Gujarat chapter of the society, following the recommendation of Resp. Dr. Ranjit S. Dhaliwal. It has been a short journey yet but filled with academics, science, research, learning, positivity and teamwork. I have witnessed the society spread its wings globally and SMALL incision cataract surgery transform into CUSTOMISED incision cataract surgery and SMART surgery.

I am glad to be able to contribute actively to many ISMSICS activities, one of which is this e-Newsletter. I also feel privileged to dedicate this issue to none other than Dr. Kunwar Vikram Singh Dhaliwal (KVSD), one of my students. He has been a student, any teacher would be proud of at any moment because of his academic pursuit, clinical and surgical skills, responsible and chivalrous attitude, philanthropic nature and a strong positive attitude towards life and work. I consider myself fortunate to have known him dearly and mentored him and to be able to fulfil his dream of the ISMSICS Newsletter.

I hope you find this Newsletter exciting, informative and useful and and we look forward to your comments as well as contributions.

Dr. Purvi Bhagat Editor, ISMSICS Newsletter Chairperson, Gujarat Chapter ISMSICS

A Tribute...



How relevant is it, for a life to just accumulate money, multiply material possessions, increase the number of houses or possess big cars?

In this short trip called life what matters is the impact it leaves behind. One glaring example of this is Dr. Vikram Dhaliwal, son of Drs. Abha & Ranjit S. Dhaliwal.

He lived for a very short time but within that period he touched so many lives and left behind so many beautiful memories that it will be difficult to forget him even with passage of time. He was techsavy, intelligent and a brilliant eye surgeon, interested in all aspects of life - music, environment, social engineering, health and fitness. He was a good son, dedicated husband, caring brother and loving father. He was polite and respectful, always on the go and full of "Yes" factor.

Almost every day, every week, I would be putting ideas in his head regarding running of ISMSICS, which he carried out with zeal. One of those projects is the book, "Masters' Guide to Manual Small Incision Cataract Surgery". As Chief Editor, with a short notice of few months, he brought out the book which was inaugurated by Rafael Barraquer, Chairman WOC, at the Barraquer Institute, Spain during the World Ophthalmic Conference.

His passing away is s personal loss. To perpetuate his memory, it is befitting to continue to publish another one of those projects, the quarterly ISMSICS Newsletter.

I thank Dr. Ranjit S. Dhaliwal and Vikram's teacher Dr. Purvi Bhagat, for willing to shoulder the responsibility of continuing Vikram's legacy.

I request all esteemed members of ISMSICS to take active interest and make the ISMSICS Newsletter one of the best in the category.

Dr. Amulya Sahu Founder Chairman, ISMSICS



There are some who bring to this world a light so bright, that even after they are gone, their light remains."



From the Chairman's Desk...



SICS is a state-of-the-art surgery. It is a wonderful alternative to expensive, machine-based surgery. It was a travesty that it was once labelled as a not-up-to-stuff, or an inferior cousin of phacoemulsification. It is only heartening that things have now changed and SICS is now gaining popularity as a modern surgery with newer advancements in the area. We agree that one has to travel the protracted and painful path for acquiring mastery in SICS. We also acquiesce to the fact that most teaching avenues in SICS are just not up-to-the-mark and trade support for SICS is rudimentary, not satisfactory. The inference is obvious: ISMSICS was formed with the sole objective of taking SICS to a higher level. With 3 major biennial world conferences, many international events and multiple CMEs, ISMSICS has now become a huge

global phenomenon. Our international webinars in the COVID19 era with attendance in multiple thousands are well appreciated all over the world. ISMSICS has chapters in almost all Indian states and is still spreading across countries globally. The response from western developed countries is very heartening.

With multiple events happening frequently across globe, it was decided to have a quarterly mouth piece of ISMSICS. The reins have been given in the hands of experienced seniors like Dr. Ranjit S. Dhaliwal and Dr. Purvi Bhagat who will definitely do justice to the Newsletter. Our new journal also will be soon launched.

Recently we lost a young and strong pillar of ISMSICS, Dr. Vikram Dhaliwal. His untimely loss was a big jolt to ISMSICS. In a short span of few years, he had become everyone's favourite.

He was a genius techno - savvy soul, never said 'no' to any work given. Who will forget the way he shouldered the responsibility of the e'book, "Masters' Guide to Manual Small Incision Cataract Surgery' as Chief Editor with a short notice of few months? The grand launching was at the Barraquer Eye Institute, during WOC 2018.

In a befitting tribute to this multifaceted Ophthalmologist, one Scientific Hall at the 3rd World Conference of ISMSICS, CCC 2019 was dedicated to his memory and christened **Vikram Dhaliwal Hall.**

He will always have a special place in my heart. He coined the term **'Endo expression'** of nucleus to my technique of delivery of nucleus. As a tribute to him, I am writing a small article on Endo Expression of Nucleus in this Newsletter.

FmSorame

Dr. Jagannath Boramani Executive Chairman, ISMSICS



Memories...



KUNWAR VIKRAM SINGH DHALIWAL,

M.B.B.S., D.O., DNB Ophthalmology

KVSD was a budding young Ophthalmologist from Punjab; a Manual Small Incision Cataract Surgeon par excellence, equally at ease with Phaco and took pride in being popular in his area as an Oculoplasty Surgeon.

He obtained his Diploma in Ophthalmology (DO) from M & J Western Regional Institute of Ophthalmology, B.J. Medical College, Ahmedabad, India. He was a Diplomate of National Board (DNB), from ICARE Eye Hospital & Post Graduate Institute, NOIDA, India. He was practising Ophthalmology at Eye Infirmary, Nabha for 6 years 4 months and 20 days.

He authored the chapter Manual Small Incision Cataract Surgery – An Update in the book Ready Reckoner of Modern Cataract Surgery, Co – Authored the chapter Temporal Manual SICS in the book Masters' Guide to Manual Small Incision Cataract Surgery (MSICS), as well as 2 chapters on Slit Lamp Examination and Specular Microscopy in Cornea Illustrated – A Guide to Clinical Diagnosis.

In 2018, Vikram was the **Editor, In Chief** of the E-Book **'Master's Guide To Manual SICS'**, which was released at the World Ophthalmological Conference, Barcelona.

He has contributed as an Author to Three (3) Books, and has more than 35 publications, presentations, instruction courses and workshops at the National & International level, to his credit. His surgical videos can be seen on his YouTube Channel at-

https://www.youtube.com/c/eyeinfirmary/videos?view_as=subscriber.

He was the Editor of the Journal of ISMSICS and monthly Video e'Journal of ISMSICS.

He was the Projects Manager & Consultant **Eye Surgeon of Eye Foundation, Nabha** which organises a Weekly Free Eye Clinic for poor patients (providing free consultancy, medicines and free eye surgery) since Jan. 1997. Under the aegis of Eye Foundation, Nabha, he was instrumental in arranging & operating at more than 25 Free Eye camps in and around Patiala district of Punjab.

He can be remembered in person at Eye Infirmary, Nabha – 147201, Punjab, India and on Facebook at – https://www.facebook.com/kunwar.dhaliwal# .

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Follow him on:

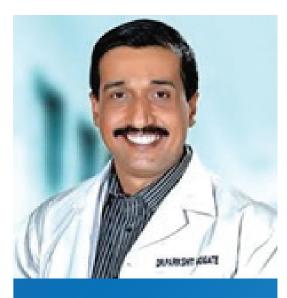
https://www.facebook.com/KVSDhaliwal https://www.facebook.com/groups/VideoAtlas http://groups.yahoo.com/group/VideoAtlas https://www.facebook.com/EyeInfirmary https://www.facebook.com/EyeFoundationNabha

Surgical Videos:

Vikram's Surgery Videos (60+ Videos & still counting)

Motivational Videos:

Rise above Disposables; Prefer Reusable. (4 Videos) Road Safety Series. (8 Videos)



** From the Vice Chairman

Manual Small Incision Cataract Surgery (MSICS) is Indian subcontinent's unique gift to the ophthalmic world. India, Nepal, Bangladesh & Pakistan have several surgeons and institutes, globally renowned for cataract surgery. MSICS holds great promise for south east Asia, Middle East, Africa and Latin America. Manual SICS is the surgery of choice for very hard cataracts, hazy corneas, small pupils etc. It's plus point (and perhaps a weakness) is that it depends entirely on the surgeon's skills.

ISMSICS has done wonders to promote manual SICS globally in the past decade. While there were numerous publications showing the equivalence of phaco & SICS, the society has helped reach out to the ophthalmic surgeons who actually perform this wonderful procedure, instil pride & dignity and show the way for future research.

Our young members are our future leaders and researchers, like the young Dr. Vikram Dhaliwal was.

Dr. Amulya Sahu showed great foresight in forming the ISMSICS in 2005, ably supported by Dr. Jagannath Boramani.

Warm regards,

Dr Parikshit Gogate

Vice Chairman, ISMSICS



* From the President

It is great to see the e'Newsletter of ISMSICS once again in these difficult times of COVID-19. The Editors, my great friend Dr. Ranjit Singh Dhaliwal, and Dr Purvi Bhagat have done an excellent job. SICS is a platform which brings the best of both the worlds; the safety of a closed chamber and the simplification of manual cataract surgery.

Simple as it might sound, the surgery has its tips and tricks which have to be learnt and perfected. The nuances of this will evolve through this wonderful Newsletter.

SICS is an ever evolving platform which finds newer horizons every day. The relevance of these platforms will be conveyed to us through this wonderful

e'Newsletter. There is a constant evolution, where newer intraocular lenses like Trifocals, EDoFs and Toric hydrophobic IOLS are being used effectively in this platform. With optical biometers and newer IOL formulas bringing excellent refractive outcomes, the astigmatism induced by the incision is also used to customize post-operative refractive outcomes. This gamut and many more will be a constant journey through this e'Newsletter.

This e'Newsletter obviously brings back memories of the most talented young ophthalmologist Dr. Kunwar Vikram Singh Dhaliwal who started this endeavour. I hope we will continue to pay our tributes, as we keep improving his great work through this platform.

Yours in MSICS,

Dr. Debasish Bhattacharya. President, ISMSICS



** From the Secretary

Despite being a Vitreo Retinal surgeon, I cannot overemphasise the important of MSICS in the career of an ophthalmologist. SICS is a cataract surgical intervention with merits of being economical and universally acceptable to all grades of cataract, delivering high quality visual outcomes.

My tryst with ISMSICS as secretary began a year ago. Short journey, yet has been filled with academics and abundant learning. ISMSICS has now become a global organisation with several international chapters. We have successfully conducted more than fifteen national and international webinars and far more are lined up with more international collaborations. One of the most successful webinar – "The planet wants to know – a debate" was attended by more than seventy countries with more than 9000 viewers which is a testimony in itself about the international presence of ISMSICS.

Dr. Vikram Dhaliwal was a strong and young pillar of ISMSICS. We, the team of ISMSICS, will be ever grateful to his valuable contributions to the society.

"Vocal for local" as has been stressed by our Honourable Prime Minister Shri Narendra Modiji, it is now the time to spread the wings of MSICS across the globe and make India proud.

Dr. Shrinivas Joshi

Secretary, ISMSICS



** From the Chief National Coordinator

I have been associated with ISMSICS for a long time and along the journey, I have seen all the good work being done by this society for the betterment of MSICS in India and abroad. Beginning with a few members, now we have State Chapters in almost all the states of India along with many International Chapters also.

MSICS is the surgery of future, and advancements in technique and innovative ideas have made it the surgery of choice in many situations.

Results from MSICS surgery showed better improvement in visual outcomes and reduced the rate of blindness among cataract patients, especially in the developing countries. Manual Small Incision Cataract Surgery offers the advantages of wider applicability, better safety, lesser complications, a shorter learning curve, all at a lower cost. Hence, SICS should be propagated as the surgical technique of choice for cataract patients.

The ISMSICS e'Newsletter is to create awareness amongst all members about the activities of the society and its future plans. Credit goes to Dr. Ranjit S. Dhaliwal and Dr. Purvi Bhagat for bringing out the e'Newsletter so beautifully. It was a dream of Dr. Kunwar Vikram Singh Dhaliwal, the worthy son of Dr. Ranjit S. Dhaliwal.

Dr. Vikram Dhaliwal, a very dynamic, dedicated, techno savvy, loving young boy, became a pillar of the ISMSICS in a very short time. His passion of MSICS surgery is visible in all his videos we still watch. His contributions for the society are worth remembering. He had a multifaceted personality, loved music, was health conscious, was dedicated to social service, along with his love for Ophthalmology. He was a very popular teacher in our SSTC programs in AIOS.

We miss you, Vikram. But you will always remain in our heart & memories.

My good wishes for the ISMSICS e'Newsletter.

Dr. Satanshu Mathur Chief National Coordinator, ISMSICS



** From the Past President



Two years back, I was president of ISMSICS. Our Society was invited by Dr. Amar Agarwal to run a session on SICS during the well attended IIRSI meeting in Chennai. I accepted willingly and then turned to my good friend Ranjit, saying "I need help in putting the programme together." He suggested Vikram, whom I did not know at all!

To say that Vikram was efficient and swift is putting it mildly. He gave me a skeleton programme outline. We wanted some young speakers and he knew all of them. He contacted them, got their responses within 48 hours, got in touch with others, in case there were dropouts and within a week we had a perfect programme ready.

Even during the session, he made sure all speakers were present in the hall, chased those that weren't, arranged a group photograph and in totality was the live wire behind the overwhelming success of the meet!

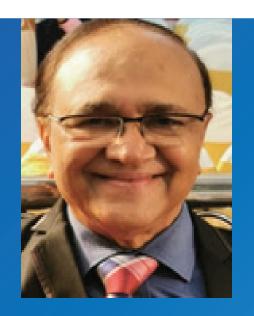
When we caught our breath after the event, I congratulated the young man with whom I had never interacted before and predicted a very bright future for him, if he never let the enthusiasm fade. He assured me he wouldn't.....

And here, I can see his astral hand behind so much that is happening....

Dr. Quresh Maskati

Immediate Past President, ISMSICS

The Journey of ISMSICS





Long long ago, Sushruta (India) started sutureless and no anaesthesia cataract surgery out of compulsion. Now also we are doing sutureless and no anaesthesia cataract surgery but not out of compulsion - out of choice. Though the concept remains the same the evolution of this method has undergone a quantum change over decades.

When phaco machine came into market, every one was searching for an alternative to ECCE. Phaco machines not only satisfied that need but also vastly improved the quality of cataract surgery. Ophthalmologists in most countries, particularly the affluent ones totally switched over to phaco. While the last two decades witnessed major advances in the techniques of phacoemulsification, there have been parallel developments in the field of MSICS too. In fact, MSICS presented more variations in techniques compared to Phacoemulsification. Unfortunately, the learning curve for MSICS has remained slightly steeper as MSICS focussed training programs are very few. Further, surgeons, especially those from underdeveloped and developing countries always felt left out in the machine dominated cataract surgery world. Though majority of eye surgeons in India performed one or other form of MSICS skilfully, they were never given importance in major conferences prior to 2005. The need was felt to provide a platform to these surgeons to show case their expertise. Phaco surgeons also can look upon MSICS as an additional tool in their armamentarium which will help them tide over certain tricky situations. To provide opportunities to surgeons to give expression to their MSCIS aspirations and achievements and to bridge all gaps, ISMSICS was conceived.

The Journey of ISMSICS

When I was president of Bombay Ophthalmologist's Association, I decided to form ISMSICS and the society was born on 30th August 2005 in Mumbai. Rest is history. The 1st live surgical International meet on MSICS was held on 30th August 2005 at Wockhardt Hospital Mumbai with a total of eight live surgeries of different methods of MSICS being presented.

ISMSICS has stalwarts from developed as well as developing countries as patrons.

Most of the office bearers are experts in MSICS as well as Phacoemulsification. While the focus of the organization is on manual SICS, we recognize that phacoemulsification with foldable lens is the surgery of choice for many cataract surgeons. The organization strives to have the best of cataract surgery by each technique and not to belittle one or the other.

ISMSICS has now become a Global organization. Its phenomenal growth is seen to be believed. What made it possible is the desire of ophthalmologists world over to find an alternative to phacoemulsification, an entirely machine dependent cataract surgery.

Now we have chapters in all the states of India and in 12 countries outside India, with the numbers growing very fast. We have conducted 20 highly successful webinars so far and more are lined up till January 2021. As I write this, I have received an email from Dr. Gullapali Rao, founder chairman LVPEI, that they shall host the 5th ISMSICS-MSICS world conference CCC - 2023 in their institution. The 4th world conference CCC - 2021 is being hosted by PGI Chandigarh

Pan India Academic and Research committee is also being formed, which will focus on post graduate training in MSICS throughout the country.

while the 6th world conference CCC - 2025 will be in USA.

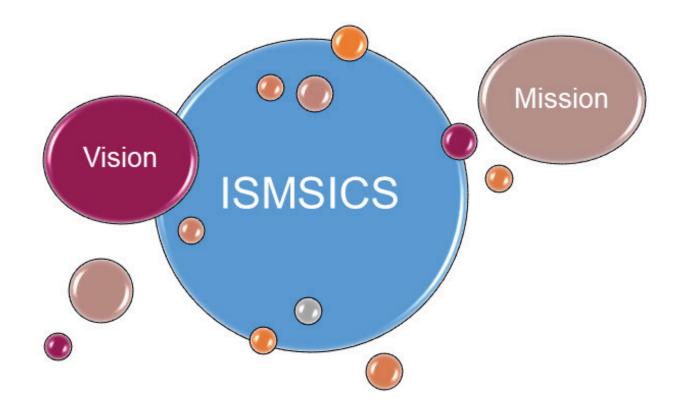
This e'Newsletter, the dream of Dr. Vikram Dhaliwal, will now be looked after by his highly dedicated teacher Dr. Purvi Bhagat and Dr. Ranjit S. Dhaliwal.

I wish this e'Newsletter a great success.

Dr. Amulya Sahu

Founder Chairman ISMSICS

The Vision / Mission



Vision

Strive to make a cataract free world and enhance the quality of life through the gift of vision.

Mission

For any organisation to grow, its roots should be strong. ISMSICS is setting up chapters in each state of India. The state chapters will form their respective committees which will take forward the activities of ISMSICS. There will be wet-labs, live surgeries, video assisted programmes to teach MSICS to ophthalmologists of India and abroad. In every country, ISMSICS will collaborate with local talent, associations and NGO's to open chapters and undertake similar training modules, CME's and conferences at their level.

MSICS - Technique Talk

Endo Expression of Nucleus

Dr. Jagannath Boramani

In SICS surgery, sometimes the size of the incision is small compared to the size of the nucleus. In such cases surgeon has to resort to phaco fragmentation. There are multiple techniques of fragmentation of nucleus like Snare technique, Fish-hook technique1, phaco section, trisection etc. Author also has his own technique of Closed Chamber Manual Phacofragmentation2. Hard nucleus should be attempted through a very small incision only when a surgeon has achieved enough expertise in such cases. Preserving corneal integrity should be a priority over neutralizing astigmatism in such cases.

I do the surgery with Anterior Chamber Maintainer (ACM) 'on' throughout the procedure. ACM provides enormous space in the anterior chamber, and prevents the nuclear touch to corneal endothelium. For a large nucleus the sheet's glide is passed in the scleral tunnel, the nucleus starts gliding into the scleral tunnel and gets stuck in the tunnel. A Sinskey hook is passed through the side port to push the nucleus out. Sinskey hook either pushes out the nucleus in toto or divides it in the tunnel (Fig. 1). This technique is safer than phaco fragmentation in the AC. The pressure exerted by the hook is born by the walls of the scleral tunnel and not by the endothelium or the posterior capsule (Fig.2). Once the nucleus gets divided in the scleral tunnel, the fragments can be easily removed. This technique can be deployed during viscoexpession also, if the ACM is not used.

Since the nucleus is pushed from inside out, an apt term 'Endo Expression of Nucleus' was coined by late Dr. Kunwar VS Dhaliwal.

References:

1. Hennig A, Kumar J, Yorston D, Foster A: Sutureless cataract with nucleus extraction: Outcome of a prospective study in Nepal. Br J Ophthalmol 2003 Mar;87(3):266-70

2. Boramani J. M. Closed Chamber Manual Phacofragmentation. In Garg A et al (1st ed): Step by step Manual Phaco (Manual Small Incision Cataract Surgery). Jaypee Brothers, New Delhi 2006;183-197

Videos:

https://www.youtube.com/watch?v=tWHVSbEgtrQ https://youtu.be/hHaQRclUfrk



Fig. 1 Pushing nucleus with Sinskey hook

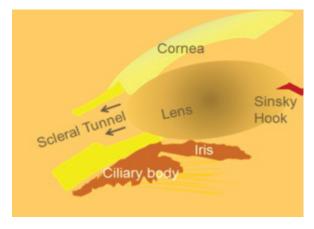


Fig. 2 Mechanical pressure born by tunnel wall

From The MSICS Surgical Tray



Irrigating Vectis

Dr. Abhishek Shah 1St Year Resident Geetanjali Hospital, Udaipur

Introduction

In manual small incision cataract surgery (MSICS), incision size is usually between 5.5 to 7 mm. Once the nucleus is prolapsed into the anterior chamber, it is carefully extracted through the scleral tunnel. Nucleus extraction with an irrigating vectis is a simple technique combining the use of mechanical and hydrostatic forces in the expression. This technique is time-tested giving good results and offers all merits of phacoemulsification with the added benefits of wider applicability, shorter learning curve and reduced cost. The technique is especially suited for softer cataracts which easily mould through smaller incisions. A self-sealing valvular incision combined with manual removal of a cataractous lens using an irrigating vectis in MSICS is an effective alternative to phacoemulsification.

Description

The type of irrigating vectis presently available is the Knolle-Pearce irrigating vectis. The conventional irrigating vectis comprises of an elongated shank having one end adapted to be connected to an irrigating shank. The Knolle-Pearce irrigating vectis has an oval closed loop portion at the other end of the shank. This closed loop part has

three irrigating holes for the egress of irrigating fluid as the vectis is moved down behind the nucleus.

The newer vectis comprises of an elongated shank portion having one end adapted to be connected to an irrigating syringe. An irrigating loop is provided at the other end of the shank. The loop portion comprises first and second loop members which extend from the shank portion in a diverging way, and an end portion extending between the first and second loop having bulged portions at its end and an indented portion positioned in between. Irrigating holes are provided in the end portion to enable the irrigating fluid to be discharged.

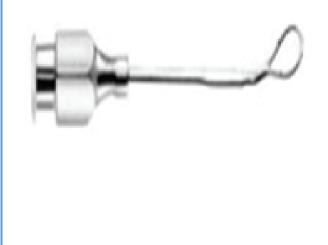
Irrigating vectis has a configuration such that as the vectis is moved upwardly over the upper portion of the lens, the lens tends to bulge outwardly or forwardly through an indented portion of the vectis, and the iris is retracted, which facilitates the positioning of the vectis behind the upper portion of the lens.

An irrigating vectis is conveniently used with a single hand to enable it to be positioned behind the upper portion of the nucleus of the lens.

Irrigation vectis typically are found in varied dimensions and sizes, from 21 - 23 Gauge variants with the loop size varying from 6 to 10 mm. Typical loop diameter is 4 - 6 mm. Anterior portion may be serrated for better grip at the intended site and slight curvature to facilitate easy movements intra-ocularly. The curved variant is known popularly as Sheets irrigation vectis cannula. The straight linear variant is the classical Knolle-Pearce irrigation vectis. Irrigation ports are of 0.3 mm size present on the outer side at 12, 10, 2'O clock positions. These are usually made from steel or titanium with the titanium vectis being more durable and longer lasting.

From The MSICS Surgical Tray



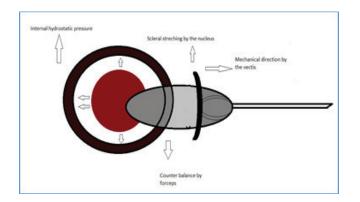


Use

After the capsulorrhexis is done, hydrodissection is performed so enable a part of the nucleus to prolapse into the anterior chamber. Then using a Sinskey hook, the nucleus is rotated clockwise or counterclockwise and prolapsed completely into the anterior chamber.

Viscoelastic is injected above and under the nucleus to protect the corneal endothelium anteriorly and push the iris diaphragm and posterior capsule posteriorly. After confirming patency, the irrigating vectis is insinuated with concave side anterior under the nucleus. Visualization of the margins of the vectis through the nucleus, except in very white and black nuclei, prevents pinching of iris and iridodialysis.

The end portion of the vectis is then positioned on the upper exterior surface of the nucleus. A small amount of pressure is then applied to the nucleus through the vectis to cause the lens to be forced inwardly. The vectis is then moved upward relative to the eye which causes the lens to slightly bulge or protrude outwardly. The end portion of the vectis is then gradually moved downward behind the nucleus as irrigating fluid is discharged through the irrigating holes of the vectis. The irrigation assists in the separation and extraction of the nucleus. The irrigation must be monitored when the maximal diameter of the nucleus clears the tunnel to prevent sudden shallowing of the anterior chamber.



Sterilization and Cleaning

Vectis is a hollow instrument which ideally requires a good cleaning process followed by sterilization. Instruments with lumens, such as irrigation vectis, should be cleaned and flushed in accordance with the manufacturer's IFU. All debris including Ophthalmic Viscosurgical Debris should be removed promptly. Sonic cleaners are used for fine cleaning and not for disinfection or sterilization. They work via high

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frequency sound waves (usually above 20kH) to produce cavitation and create high pressure shock waves. Cleaning takes place as the cavitation dislodges soil from the lumen of vectis that is difficult to clean, which are placed in the tank with a cleaning solution.

Instruments should be visually inspected for debris and damage after cleaning and before sterilization. Sterilization process can be accomplished by either an autoclave or ETO machine.

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Videos:

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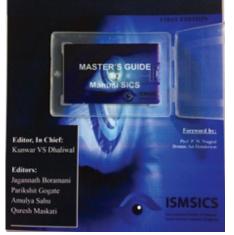






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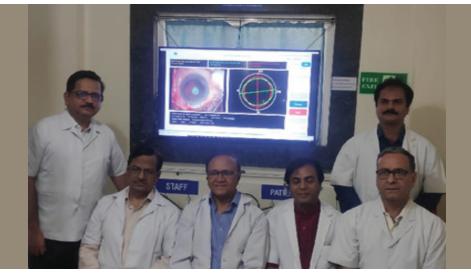












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