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Vision with Attitude

In this issue:

Medicals international

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Yes we can!...

Yes we can was the slogan that brought to the White House the first African American President; a true precedent in our generations' history. Congratulations to President Obama; You made it!.

What Medicals International has to do with all of this? Mind you; We are a company with no political affiliation and we have nothing to do with what US or other systems cater for. We are a medical and health care dedicated regional service provider but truly believe that what was impossible yesterday is truly possible in our watch today!.

So **Yes we Can!** In so many ways was established by MI as a slogan for change: We have established regionally that the fastest growing Femto-laser technology placements are no longer a world leader provider bi-product, it is simply a SWISS smartly built technology that provides; mobility, versatility and ultimate best results for our valued patients.

We have established that key to dental implantology is a product that has the least failure rate and the most natural esthetic outcome. It is NOT the one that decorates our highways with elegant advertising as a way to achieve market penetration.

We have ensured that our leading cosmetic contact lenses are NOT the ones multinationals pay millions to celebrities' to wear them; ours is simply paid for by those celebrities' when choosing what suits their eye health and look best.

So **Yes we can!** Applies in so many ways to what Medicals International is after and it is all about; You! The new generation of youth that is emerging as a practitioner, provider or consumer at the same time.. What is best for you? **A dictated brand that is properly advertised or a choice you make in life?.**

That applies to decisions and moves that you might make next in life; whether it is the next implant you place in human eye or mouth or a job you accept to build and secure your future and carrier at!

Surely the answer is not mine, it is prime time to make a solid choice based on personal convictions armed with determination and a daring attitude.

Most Sincere Regards,

Your friend, partner and colleague,
Walid G. Barake
President and Founder

New & Innovative Bone Material for Dentistry in the Middle East

It's our pleasure to announce that Medicals International is now the exclusive distributor of VitalOs Cement® in Lebanon, UAE and Kuwait.

VitalOs is an innovative bone regeneration material, produced by "Produits Dentaires S.A." in Switzerland. With research and scientific back up dating from 1993, we are offering with VitalOs a new approach for dentists to manage and promote bone regeneration.

VitalOs is an entirely mineral Cement eliminating all risks of infections during surgeries. VitalOs is made of totally resorbable calcium phosphate. It is injectable and ready to use, so doctors will find great simplicity in using it which will allow them to save precious clinic time. And since it acts as a bone regenerating material and a membrane at the same time, it is cost effective compared to granules and other materials.

In a highly demanding and complex market, and with our commitment, we're sure that this new approach will make the life of our dentists much easier, and will offer patients the best solution for their bone related problems.

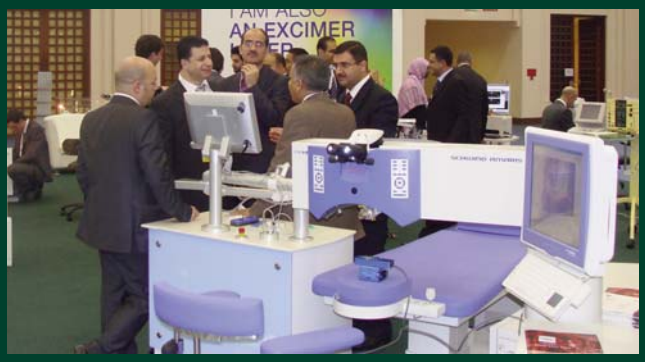
Medicals International @ MEACO 2009

Medicals International is a regional leader in the sales and distribution of a broad line of ophthalmic products in the **Middle East**.

Our leading presence at **MEACO 2009** highlighted our keen interest to move ophthalmology to a distinguished place in terms of approach and industry positioning.

MEACO 2009 in particular was special. Our ophthalmology line is the largest ever and the territorial boundaries we reach are further than ever before.

The event showcased leading **partners/ suppliers'** technologies and to that we extend a big thank you note for their extensive support as well as for the hardwork with **Medicals International team** in the background to make this event as successful as it was.



MEACO 2009 Congress Highlights

The largest ophthalmology meeting in the Middle East and Africa region, the **10th MEACO International Congress,** was held recently in Bahrain from the 26th March until the 30th March 2009. Since its inception in 1989, the **MEACO Congresses** are held biennially and has till date organized 10 International Congresses in the various parts of the region namely, Egypt, Morocco, Jordan, Lebanon, Tunisia, Dubai and the latest one being held in the Kingdom of Bahrain.

The MEACO 2009 Congress witnessed an overwhelming attendance of more than 3,000 registered delegates. The Congress was held in collaboration with the International Council of Ophthalmology (ICO) and American Academy of Ophthalmology (AAO).

The Scientific Program was very rich, addressing all aspects of Ophthalmology which included: Cataract, Anterior Segment, Cornea, External Disease, Refractive Surgery Management and Intervention, Glaucoma, Neuro-Ophthalmology, Oculoplastics and Orbit, Pediatric Ophthalmology and Strabismus, Retina and Vitreous, Uveitis and Prevention of Blindness.

More than 180 top notch International speakers and 370 Regional speakers participated. This is the highest number in the region's history. There were more than 800 papers presented within 120 scientific sessions, including 72 Symposia, 35 Instructional courses, more than 160 E-posters and more than 40 videos in addition to the state-of-the-art live surgeries and exclusive corporate meetings. The technical exhibition witnessed the participation of nearly 100 international companies showcasing their latest products.

For the first time in **MEACO Congress** history, there were contributions from more than 10 International societies, namely, International Council of Ophthalmology (ICO), American Academy of Ophthalmology (AAO), European Society for Cataract and Refractive Surgeons (ESCRS), Academia Ophthalmological Internationalis (AOI), Society for Ophthalmo-Immunoinfectiology in Europe (SOIE), Club Jules Gonin, American Association for Paediatric Ophthalmology and Strabismus (AAPOS), International Society of Refractive Surgery (ISRS/AAO), International Agency for the Prevention of Blindness (IAPB), All Indian Ophthalmological Society (AIOS) and the Russian Ophthalmic Society.

Another important highlight of the Congress was the **two-day VISION 2020 Symposium on Africa:** The next 10 Years. Leaders and participants in the symposium presented the successes and challenges thus far. Attendees were divided into working groups to develop goals, specific priorities and targets for the next 10 years and beyond.

MEACO also took the opportunity to award three ophthalmologists for their contribution and services to the field of ophthalmology. **Dr. Babar Qureshi** was awarded **the Prince Abdulaziz Ahmad Al Saud** Award for Prevention of Blindness. **Dr. Jack T. Holladay** was awarded the El-Maghraby International Award for advancement and amelioration in Ophthalmology and **Dr. Hormoz Chams** received the MEACO Distinction Award for his writings and organization in ophthalmology and development of international relations between ophthalmologists.

Dr. Abdul Aziz Al Rajhi,
President of MEACO Board

Staar Surgical's Participation in MEACO 09

STAAR Surgical AG was so honored to participate in the last **MEACO congress** in Bahrain on various levels. We were part of **Medicals International's** breathtaking booth, and we had several activities about the ICL/Toric ICL during the congress:

1) Lunch Symposium: Dr. Scott Barnes & Dr. M. Alaa El Danasoury have enriched the audience with their expertise.

2) Video Session: on the last live surgery session that took place in WOC 2008 in Hong Kong, where 3 bilateral ICLs have been preformed.

3) ICL Certification Course: Dr John Vukich has instructed 20 doctors to become ready to start with the ICL practice.

In addition, we hosted the 1st Middle East Regional **ICL Users Meeting,** where more than 50 ICL surgeons from the Middle East have participated, and 12 speakers were presenting the latest clinical updates about ICL/Toric ICL. The main emphasis was about the ease of use, safety, long-term reliability, and the new uses of ICL & Toric ICL esp. for lower diopters (within the LASIK range), and as a secondary procedure after PKP, LKP, Corneal Rings, cross-linking, and for pseudophakic patients. There was also a nice debate in the Phakic-IOLs session among various types, and surely the ICL was the absolute winner !

We thank all who made this **MEACO congress** a successful one for STAAR Surgical, mainly the organizers, the speakers, Medicals International, and especially the participating ophthalmologists.

Youssef M. ALWAN
Application & Marketing Services Manager,
Middle East, GCC, & Africa.
www.iclinfo.info

Youssef & Dr. M. Alaa' El-Danasoury

Saudi Ophthalmological Society (SOS), 2009

In the presence of **HRH Prince Abdul Aziz bin Ahmed bin Abdul Aziz Al-Saud, President of the Saudi Ophthalmological Society (SOS),** the 'Saudi Ophthalmology 2009' opened at the Riyadh-based King Fahd Cultural on Sunday March 1, 2009 (4 Rabi Awal 1430H.) The event was patronized by Dr. Abdullah Al-Rabiah, the Minister of Health.

Saudi Ophthalmology 2009 Symposium was the combined meeting of the 26th Annual Symposium of the King Khaled Eye Specialist Hospital and the 22nd Annual Scientific Meeting of the Saudi Ophthalmological Society.
The symposium focused on recent advances in the following topics: Cornea, Refractive surgery, Cataract, Glaucoma, Retina, Ophthalmic Oncology, Genetics and Biotechnology, Prevention of Blindness, Optometry.
Medicals International was available in this important meeting with a nice and attractive booth, we were wishful to attend with all our important products, excimer laser, Tomey products line, contact lenses...Etc.
Medicals international booth had the pleasure to be visited by HRH Prince Abdul Aziz bin Ahmed bin Abdul Aziz Al-Saud, President of the SOS, and he took a brief report about our products by our colleague Elie abou Aziz.
Medicals International booth received ophthalmologists, optometrists, ophthalmic nurses, ophthalmic assistants, ophthalmic technicians, and allied health professionals working in the field of eye care and prevention of blindness.
We were very interested to give the visitors updates on the latest developments and information in ophthalmology, and to update them of the latest and most advanced ophthalmic equipment including lasers, contact lenses.
Saudi Ophthalmology 2010 meeting, is scheduled to be held from February 28, to March 2, 2010 (14-17 Rabi Awal 1431H.) and for sure Medicals International will be there to give you a higher level of presence.

Ala'a Megdadi,
Associate Sales Manager, CL,
Riyadh Office

Intacs Event at the Eye Specialty Hospital

The Eye Specialty Hospital was the place and April 15th was the date for an event with the subject of **Intacs rings** held by **Medicals International** with the help of **Dr. Juan Carlos Abad,** Clinical Corneal Fellow at Harvard Medical School and currently privately practicing at Medellin, Colombia.

The event began with a presentation made by **Dr. Abad** titled ***"Pearls in the Management of Keratoconus and Ectasia"*** in which he went through a review on the Keratoconus as a disease and the different options available for the patients to overcome this visual problem, with the implantation of Intacs rings from Keravision as a principal and reliable option in hand. The presentation was attended by 30 doctors and practitioners.

What followed was a wetlab made for a number of doctors interested in the issue of rings implantation, in which they got to see and try the steps designated for the procedure and the smoothness of the ring maneuvering inside the Stroma.

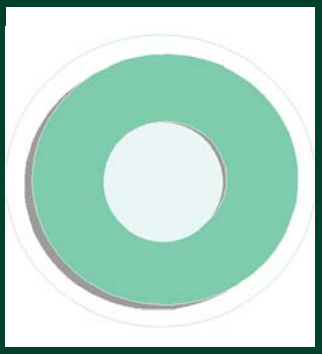
At the end, **Dr. Abad** assisted in a live procedure made for a patient with advanced Keratoconus stage, which required using the Intacs SK to correct the vision difficulty and turn it into visual acuity.

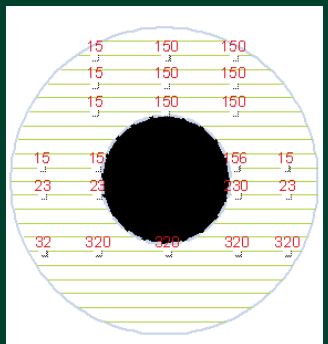
Sami Sila,
Business Development Manager,
Jordan office

Scissor Effect & Toric Lenses

When wearing a toric lens, the main influences on its orientation are the method of stabilization and the lids. Both the upper and lower lids have a big effect on lens movement. However, because the lids move in mutually perpendicular directions, they can influence orientation in different ways. The upper lid largely controls orientation stability during blinking, which tends to push away and rotate the thicker portions of the lens more than the thinner portions. This so-called "watermelon seed effect" (scissor effect) is widely responsible of most of the lens rotation during toric lens wear.

Coopervision and The Institute for Eye Research (IER), located at the Cornea and Contact Lens Research Unit (CCLRU) in Sydney, Australia, jointly addressed the problem of toric lens design, stabilization and first fit success using a scientific approach





The definitive result of this analysis and development effort was the unique design of the Biomedics Toric, a back surface, prism ballasted soft toric lens containing innovative design elements that control rotation and manage scissor effect. Those elements are: larger ballast area, uniform horizontal thickness profile, optimal shape for comfort and orientation and smooth junctionless surface.

Sandra Khalifé,
Territory Manager, CL
Beirut Office

Keratoconus Seminar in the Eye Specialist Hospital in Aldhahran- KSA

As part of **Medicals International's** partnership with the eye care community in Saudi Arabia, Medicals International conducted a seminar on one of its leading products, the Rose K lens, which was followed by some fitting trials for keratoconus patients.

Medicals International had a great pleasure to give Rose k training in the eye specialist hospital in Aldhahran-KSA where fourteenth optometrists attended the session.

The training started by a presentiaon by Ala'a Megdadi on the rose k lenses, he talked in his presentation about keratoconus and the history of the keratokonus lenses and the design and the concepts of the rose k and what makes it a much better lens, and he continued by explaining the fitting steps in order to give the patients the needed results from wearing these lenses, which makes it the most prescribe lens worldwide.

Then Ala'a Megdadi and Ra'fat Alattar working closely with the optometrists in fitting some cases to demonstrate the ease of fitting as well as the high improvement the patients will see in their eye sight.

This collaboration between **Medicals International** and the eye care professionals will ensure that keratoconus patients are benefiting from the existence from the Rose K lens to the maximum.

Ala'a Megdadi,
Associate Sales Manager, CL
Riyadh Office

A Bright Outlook for SEIKO Wearers

Medicals International is always looking for ways to help you turn your business stronger and even more distinctive. SEIKO lenses offer many wearer benefits and exceptional quality backed up by a brand that consumers know and trust. Our **SEIKO** lens sales grew significantly in 2008 and we believe that this trend will continue.

In 2009 **Medicals International** will be offering opticians even more **SEIKO brand** sun lens options for discerning wearers. Already tints of up to 85% absorption are available on all **SEIKO** lens materials, even on the thinnest 1.74 index options. For customers who want spectacle lenses with tints that change depending on the level of UV, **SEIKO** offers the new and improved Transitions VI application on single vision lenses in 1.50 and 1.67 indices and on the increasingly popular SYNERGY freeform progressive lenses in 1.50, 1.60 and 1.67 indices.

New arrivals in 2009 are **SYNERGY 1.50 index** options in polarizing brown or grey and DriveWear. Polarized lenses filter out reflected light and are ideal for those who enjoy water sports such as sailing or fishing. DriveWear lenses combine the benefits of polarization and variable tint technologies making them the obvious choice for wearers who want both increased sun protection and the removal of irritating reflected light. This combination is ideal for driving on sunny days, as the lens name would suggest.

The range of **SEIKO** lenses is constantly developing to incorporate new technologies offering wearers even more benefits, creating customer satisfaction and loyalty and increasing profits. To find out more about the **SEIKO** range of premium lenses contact **Medicals International** at *medicalsintl@info.com*

Anti-Reflection Coating Treatment for Maximum Performance

Anti-Reflection (AR) Coating technology has come a long way to provide wearers with superior lenses durability and the clear vision needed. This technology and materials used were studied carefully to improve the lens coating provided. The Anti-Reflection Coating advantage is more and more becoming a need, with the significant increase in demand worldwide. In Europe, it's estimated that 60% of the total dispensed lenses have AR Coating, while in Canada; this demand reaches 30% and 90% of the total market in Japan.

This Anti-Reflection Coating is applied to one or to both surfaces of the lens. This helps in increasing light transmittance through the lens (from 91% to a maximum of 99% depending on lens material), adding to it, obtaining a sharper and clearer image. Also, it prevents Ghost Images that are normally visible unless one of the following conditions is true: the intensity of the Ghost Image with respect to the surroundings illumination is low, the vergence of the reflected image is the same as, or close to, the vergence of the refracted light, and the position of the ghost image is within the field of view.

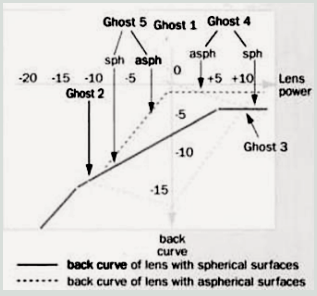


fig.1

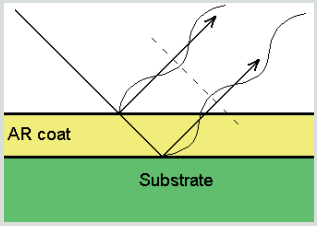


fig.2

What is Ghost Image?
The Ghost Image or Catoptric image is an image formed on optical lenses (in specific) due to the reflection of light either on the front surface, back surface or both surfaces of the lens. These images can be very annoying to the wearer leading to some problems in viewing the surroundings.

These Catoptric Images are formed by one of the following:
1)The internal reflection at the lens surface.
2)Light reflected from the cornea and back surface of the lens.
3)Light reflected from the cornea and front surface of the lens.
4)Reflections from a source behind the lens at the back surface.
5)Reflections from a source behind the lens at the front surface.
6)Reflections that the observers suffer from (Cosmetic Effect).

Figure (1) helps to identify which ghost image the patient suffers from by knowing his/her lens power. It was found using some equations for situations where the reflections are in sharp focus together with the equations from modern spectacle lenses.

To produce an effective AR coating, 2 Criteria must be met:
1.The refracted wave must be exactly out of phase. To ensure that, the thickness of the AR-layer must be exactly one-quarter of a wave length (Principle of Interference Technique *Figure (2)*).
2.The refractive index of the coating layer must equal the square root of the refractive index of the material.

The multi-layer AR is a sequence of layers applied to cancel different wave lengths. It reduces the reflectance over the whole visible spectrum- unlike single layer AR which reduces reflectance for only one wavelength (and less effective for shorter or longer wavelengths). This multi-layer AR uses a stack of pairs of alternate high and low refractive index layers; where thicker pairs cancel the central spectral range and the thinner pairs cancels the blue and red regions.Today's AR uses vacuum techniques where the AR material is evaporated in a crucible within a vacuum chamber and adheres to the surface of the lens. The machines are normally operated at a pressure of around 0.00001 millibars.

After hours of processing, the lens still needs one more treatment; the hydrophobic coat. This particular coat helps in the creation of high surface wetting angle which allows water to run off easily leaving no residues. By that, the lens is kept cleaner for a long time preventing the coating from being damaged due to extensive rubbing!

It is now better for you to recommend your patients AR lenses for their vision benefit, cosmetic appearance and visual acuity.

Sinan Gharaibeh,
Territory Manager,
Optical Department,
Jordan

Medicals International Sponsorship for the GBOI (German Board Of Oral Implantologie)

For the first time in Kuwait and with the collaboration of the KDA (Kuwait Dental Association) the GBOI program took place in Kuwait under the supervision of Dr Hisham El Jubbayn member of the GBOI. The program extends over one year from May 2008 till April 2009 divided into 8 sessions each held for 2 days every 45 days.

Medicals International being the distributor of **Astra Tech** Dental implant system, sponsored the 5th meeting of the GBOI on the 9th and 10th of January 2009 at the Hotel Rotana in Fahaheel. We had a booth in which we presented our products and information material in addition to the broadcasting of a live surgery.

The 24 doctors attending this program had the opportunity to try a hands-on and to implant an Osseospeed fixture in artificial jaws.

Dr Georges Eid, our lecturer presented the **Astra Tech** Dental system in his subject **"Astra Tech BioManagement Complex"** revealing the 4 different characteristics of the Astra implants and the unique combination between the following features:
1- Osseospeed
2- MicroThread
3- Conical Seal Design
4- Connective Contour

Chahid Daghfal,
Territory Manager,
Dental Department,
Kuwait

Part of the Doctors attending the course

From left to right, Dr. Georges Eid, Dr. Hisham El Jubbayn, Chahid Daghfal & Bassam Khoury

Astra Tech: "A Unique Combination"

To put it simply, with the **Astra Tech Implant System**, esthetics are integrated into the implant system design. **Astra Implants** work together with nature in supporting the natural healing process instead of interfering with it. **That is why doctors can rely on the Astra Tech Implant System, not only today, but also tomorrow and beyond.**

A successful implant system cannot be determined by one single feature alone. Just as with nature, there must be several interdependent features working together.

The following combination of key features is unique to Astra Tech:
• OsseoSpeed : more bone more rapidly
• MicroThread : biomechanical bone stimulation
• Conical Seal Design : a strong and stable fit
• Connective Contour : increased soft tissue contact zone and volume

Habib Abboud,
Territory Manager,
Dental Department,
Beirut Office

Corneal Cross-linking with Femtosecond Laser Yields Good Results, Fast Recovery

This technique strengthens the biomechanical stability of the cornea, allowing a deeper cross-linking, surgeon says.

Femtosecond-assisted corneal cross-linking allows adequate riboflavin absorption and UV light delivery without epithelial removal, thus avoiding pain, corneal scars, epithelial defects and keratitis, according to one surgeon.

Elias F. Jarade, MD, said the IntraLase femtosecond laser (Advanced Medical Optics) can perform what he called a spiral pattern flap, consisting of a small 15° side cut with a 345° hinge.

"This is more or less the reserve cut-hinge proportion of a normal LASIK flap," he said at the European Society of Cataract and Refractive Surgeons meeting.

Through this small side cut, which is a close, watertight system, a 21-gauge beveled intravenous catheter is introduced to inject riboflavin within the stromal pocket that was created by IntraLase.

"This technique allows a better stromal diffusion and quicker absorption of the photosensitizing agent, without leakage and dispersion," Dr. Jarade said.

It is also time-sparing because riboflavin, which is injected directly into the corneal stroma, absorbs quickly and reaches a high concentration in a much shorter time than with the classical "epithelium off" method.

"You don't need to wait the usual 30 minutes before you start irradiating the cornea with UV light. A couple of minutes are sufficient. It is possible that with this high concentration of the photosensitive agent, also the time of light exposure could be significantly shortened," he said.

Therefore, less riboflavin and less UV light can be used. Patients experience a faster, uneventful recovery without any pain, Dr. Jarade said.

"You can touch the eye at day 1 and day 2, and there is no pain at all. The difference in patient comfort is comparable to PRK vs. LASIK in corneal refractive techniques," he said.

The small pocket performed femtosecond laser does not affect the biomechanical stability of the cornea, and Dr. Jarade said by leaving the epithelium in place, a deeper cross-linking can be attempted, obtaining a deeper restructuring of the cornea.

by Michela Cimberle.

PERSPECTIVE

Intrastromal delivering of riboflavin in corneal collagen cross-linking may be considered if the femtosecond laser is used. There would certainly be the advantage of reducing the pain and corneal scars related to epithelial removal.

The clinical application of this technique, however, would require the appropriate evaluation process. We have now well-established parameters for cross-linking, which were designed following the extensive experimental studies led by Theo Seiler, MD, PhD, and Eberhard Spoerl, PhD. New delivering procedures may modify these parameters and would benefit from further experimental investigations to evaluate the biomechanical effects and the potential damage to the ocular tissue. There is, in fact, a possibility that the lamellar cut of the intracorneal pocket might increase visual disturbances from high-order aberrations and affect the structural integrity, biomechanical stability and optical properties of a keratoconic cornea.

François Malecaze, MD, and Pierre Fournié, MD
Hopital Purpan, Toulouse, France

Palestinian Ophthalmic Delegation Welcomed in Jordan

On March 30th, and in a joint effort and collaboration, **Medicals International** and **Sharif Eye Centers** welcomed the **Palestinian Delegation of Ophthalmologists** into a scientific gathering in Amman, Jordan. The gathering was attended by 33 Palestinian doctors coming from the West Bank and hosted by Dr. Khaled el Sharif, who welcomed the presence and talked about the hardness they carry in order to deliver to their patients the designated message behind their medical knowledge.

After that, **Dr. Sharif** went through a series of technical and medical applications currently applied at his prestigious and specialized centers, which happens to receive a numerous number of Palestinian patients seeking treatment. The presentation started with a quick review on the history of The Sharif Eye Centers and went into a more detailed explanation of the latest innovative treatments available, with the ICL being one of them and what it means to the patient to have the ICL as an option in hand.

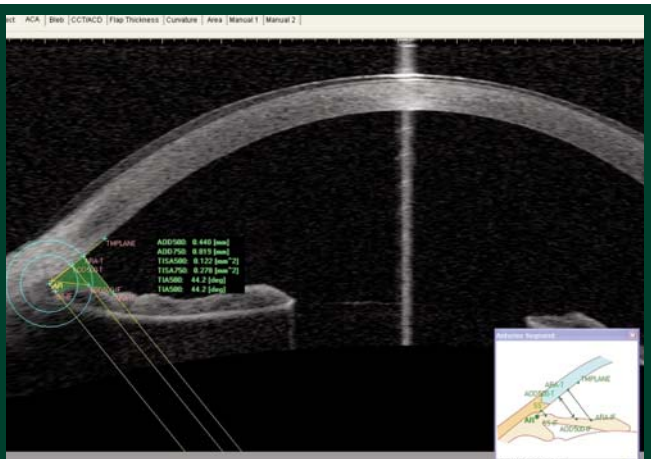
The second part of the gathering was hosted by Eng. Khaled el Jarrah, presenting Medicals International. He started with a presentation showing the long history of the organization and its evolution throughout the years, while its single and only slogan maintained and it's delivering what's best to patients. Then, he continued with a brief listing of the different product lines that the company offers, beginning with the small consumables and ending with the biggest ophthalmic machinery.

At the end, Dr. Khaled el Sharif was given the Palestinian Ophthalmologists Association Shield as a gratitude symbol for his efforts made throughout the years to push forward with the medical welfare of the Palestinian patients.

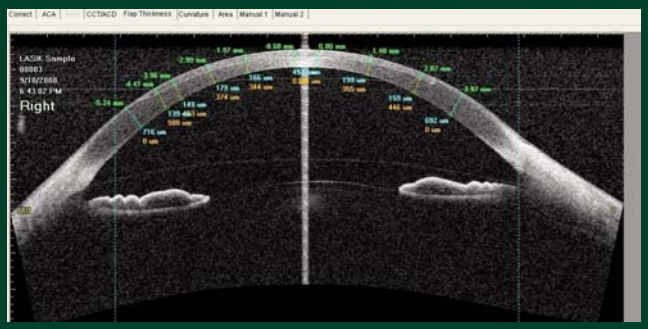
The objective of this gathering is far more than a promotional meeting, and it's more of a window opened to a part of the Arab world that needs help to keep contact with what's new in the all-time changing word of medicine and who is better to give that assistance than **Dr. Khaled El Sharif** and **Medicals International.**

Sami Sila,
Business Development Manager,
Jordan office,

The new Casia SS-1000 Anterior Chamber OCT from TOMEY



Pic 1: Angle Calculation



Pic 2: Flap Thickness measurement

Features are:

- Very high scanning speed: 30,000 A-scans/sec.
- 130,800 A-scans.
- Cut plane 16 mm x 16 mm x 6mm.
- Total scanning time only 4.36 sec. for max resolution.
- Topo/Pachy Map in 0.3 sec.
- (Acquisition time per single B-scan: < 0.5 sec).
- Free adjustable display in 2-D and 3-D.
- Individual correction based on the cornea power.

With the **CASIA SS-1000** Fourier Domain **OCT** high-speed and high-resolution images for a variety of clinical situations can be taken. Due to the Swept Source technology three dimensional data can be captured at a speed of 0.3 to 2.4 seconds with minimal motion artifact.

The **SS-1000** measures 256 B-Scans over the cornea which enables the real 3D view. The high density of the B-scans allows an entire analysis of the anterior chamber.

Since the **SS-1000** is a non contact system, the images can be taken immediately after surgery. Corneal curvature, anterior chamber angle analysis, bleb segment analysis, measurement of corneal thickness and anterior chamber depth and the anterior segment of an opaque cornea can be analyzed with various applications. In Addition to the measurement values in the single B-Scans the **SS-1000** provides you with a Topographic and Pachymetry Map of the corneal surface. The individual cornea power correction function, considering all physical changes in the AC is an important tool of correct calculation and relocation of the same cornea spot.

With this unique combination of high resolution and speed, Tomey give you a tool to see every tiny detail you want to see in the Anterrior chamber.

Get in contact with Medicals International, to get more information and have an additinal look @ www.tomey.de

First Intacs Surgery with LDV Femtosecond in Kuwait

In last week of January 2009, **Dr. Sami Al Rabiah** performed his first **INTACS surgery** with the **LDV Femtosecond** Laser machine in the presence of **Ziemer's** clinical director **Dr. Werner Bernau.**

The patient, a 19 years old female, had a trauma in the right eye which resulted in corneal scarring and high astigmatism. The unaided vision was 20/400.

During the surgery the tunnels' formation was very fast, clean and well positioned. The rings were much easier for insertion.

The results were excellent. The second day the patient had reached an unaided vision of 20/30 easily.

Bassam Khoury,
Managing Director,
Kuwait Office

Oertli EasyPhaco®technology: Fluidics is your best friend in cataract removal

Motivation

Which properties would you expect from a good phaco tip? What would a perfect tip look like? What about a well-designed tip with good followability, excellent chamber stability, and a very efficient phaco emulsification?
Oertli® has developed such a needle that makes every surgeon's dreams come true! It ensures the patient's safety and keeps the surgery time short.
The new easyTip®2.2mm is based on the successful design of the CO-MICS 2- needle. It combines the advantages of a 20G-tip (good emulsification, short operation time) with the outstanding fluidic properties of the recently developed, noncylindrical CO-MICS 2-shape. The tip is optimized for maximum chamber stability and therefore patient safety.
It also makes the surgeon's work easier with its excellent followability and holdability.

Fig. 1: The difference between the easyTip®2.2mm and the traditional design is shown in figure 1. The easyPhaco®technology delivers more.
The difference between the easyTip®2.2mm and the traditional design is shown in figure 1. The easyPhaco®technology delivers more irrigation flow (area B) without increasing the effective size of the tip. This and the small diameter of the aspiration tube (area C) strongly enhance chamber stability.

Chamber Stability

The new Oertli easyPhaco®technology is a real breakthrough in the field of cataract surgery: Assuming that all the equipment is mounted and applied correctly, the following pump settings can be selected (please remember that this only applies for free irrigation outflow, and care should be taken not to pinch the sleeve on the incision by mistake. In addition, you should make sure that the bottle height is correctly calibrated on your machine):
Bottle height: 100 cm (above patient's eye!)
For Venturi pump: 500 mmHg vacuum limit
For peristaltic pump: 50 ml/min flow and 600 mmHg vacuum limit

The new easyTip® 2.2mm is by far our safest needle!

Fig. 2 shows the behaviour of different tip-models. The occurrence of a post-occlusion surge is experimentally investigated in a test chamber acting as an "eye". Here the pressure is measured shortly after the occlusion break, (occurring at the time t=0) and is recorded until the steady-state has been fully re-established. The curve shows the post-occlusion pressure inside a test chamber. The pressure is measured for different tip models.

The diagram shows that the pressure inside the eye drops far below atmospheric pressure for other tips (Excellerator 1 and CO-MICS 2) shortly after the break of occlusion. This means that the anterior chamber becomes unstable. These tips are therefore usually not used with such high pump settings.
However, in the case of the easyTip®2.2mm, the red curve shows that a bottle height of 100 cm is sufficient to hold the pressure continuously close to or above atmospheric pressure, even though the aspiration flow on the peristaltic pump is set to 50 ml/min and the vacuum limit to 600 mmHg.
For an arbitrary bottle height, the following table indicates the limit for the maximum vacuum and flow rate:

bottle height (see text)	40 cm	60 cm	80 cm	**100 cm**	>110 cm
Venturi: maximum vacuum	80 mmHg	220 mmHg	350 mmHg	**500 mmHg**	600 mmHg
peristaltic: maximum vacuum	200 mmHg	300 mmHg	480 mmHg	**600 mmHg**	600 mmHg
maximum flow rate	10 ml/min	30 ml/min	40 ml/min	**50 ml/min**	50 ml/min

These values correspond to the maximum limits when using the easyTip®2.2mm. In several surgical situations they may even be exceeded. Please note that the bottle height refers to the level above the patient's eye. Venturi speed settings (% rise time) can be chosen freely; it does not influence chamber stability.

Followability

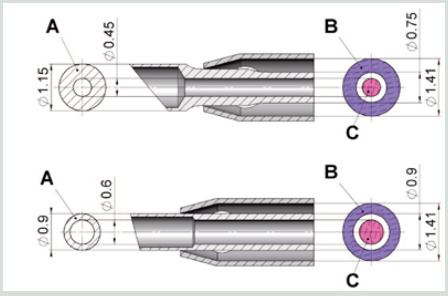
In addition to the substantial improvements in chamber stability, there is another major advantage which cannot be quantified but is attested by experienced surgeons.
Due to the excellent fluidics of the easyTip®2.2mm, quiet handling and gentle movements can be applied for nucleus removal, which guarantees a gentle treatment of the eye. Initial trials in the operating theatre show that the nuclear fragments literally fly to the tip. (See also the two paragraphs at the end of this application note.)
One reason for this favourable property is the fact that higher flow rates can be applied with the new tip. The attractive force of the needle is therefore increased and the time during which occlusion occurs is longer. As a result, there is less chatter in the anterior chamber.

Phaco Emulsification

A high level of holdability is a requirement for an efficient phaco emulsification. It ensures that nuclear fragments stick on the tip and can easily be shattered to pieces. A high vacuum is therefore required. When using traditional phaco tips a compromise has to be found between chamber stability – which improves at low vacuum settings – and the holdability. The easyTip®2.2mm shifts this vacuum limit towards higher values due to its excellent chamber stability.
A second advantage is the bevel angle of the tip which maximises the area of the opening. These two effects significantly increase holdability with respect to traditional designs.
In addition, the large cross-section (see Fig. 1, shaded area, (A)) perfectly transmits the ultrasonic energy into the nuclear fragments. For these reasons, the easyTip®2.2mm displays very high emulsification performance.

Conclusion

In conclusion, Oertli® has designed a new phaco technology (easyPhaco®technology) which sets new standards regarding chamber stability. The easyTip®2.2mm also demonstrates good followability which facilitates handling for the surgeon and keeps the total operation time short



EasyPhaco® technology

Traditional design

Fig.1

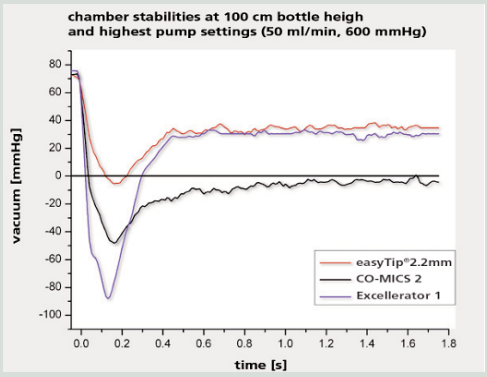


Fig.2

In addition, the excellent chamber stability and the optimised front shape of the needle result in an outstanding phaco emulsification power.

In order to take full advantage of the easyPhaco®technology flow and vacuum both limits have to be increased substantially!

Try it out!
Order an easyPhaco® Pack, set your OS3 to the values listed above and operate with your standard technique through a 2.4 mm incision. You may later change to 2.2 mm incision width.

VV630011D easyPhaco®
Pack with TwinVac cassette,
1 easyTip®2.2mm / 40°, 1 sleeve,
1 test chamber, 1 key

VV630011DB easyPhaco®
Pack with TwinVac cassette,
1 easyTip®2.2mm / 40°, 1 sleeve,
1 test chamber, 1 key, 1 bimanual I/A set

The principle of easyPhaco®: Fluidics on!

Fig. 1: No turbulences
The high vacuum setting of easyPhaco® and a wide infusion path create a strong, axially directed flow. The result: no turbulences, no floating fragments, magnetic attraction of material and perfect followability.
Fig. 2: No repulsion
The high vacuum setting of easyPhaco® and the optimized bevel of the easy Phaco® tip lock fragments firmly to the tip mouth with magnetic holdability, strong enough to prevent repulsion.
Fig. 3: No laterally radiating energy
US energy is applied axially and totally absorbed within the high vacuum locked core material.
Fig. 4: Perfect emulsification
High vacuum locking and optimized tip design provide superb coupling of US energy to the core material. Energy transfer to core material is increased by a factor of 6. Hard and mature nuclei create no problems.
Fig. 5: Efficient fragment aspiration
Finely emulsified nuclear particles are smoothly aspirated by high vacuum through the capillary aspiration channel. No risk of clogging.
Fig. 6: No surge
Upon occlusion break, the capillary aspiration channel resists a sudden liquid flow while the wide infusion path provides constant IOP. Infusion capacity is 7 times larger than aspiration volume. The AC remains almost unconditionally stable.

Prof. Rupert Menapace
Medical University of Vienna, Austria
I use the new Oertli easyTip®2.2mm with a 2.4 mm incision, which coincides with the incision size required for the most recent mini-incision lens implantation systems. My preferred pump system is the flow controlled peristaltic pump.
The swollen tip head and its 40° bevel doubles the area of the front opening, and thus its holdability. The slim-shaft design combines several advantages: The stepped transition from a swollen tip head to a slim shaft increases the projection area of the frontal plane, resulting in an increase of emulsification power by a factor of six. The flow resistance inherent to the very small aspiration bore allows and requires working with a high vacuum to obtain adequate flow.
The waisted design of the tip allows using a reduced-in-diameter sleeve which runs almost flush with the tip head, minimizing the incision size required. Also, it eases insertion into the incision and more snugly adapts to its inner contour due to its increased flexibility. The wider space between sleeve and slim shaft increases the distance to the tunnel wall and allows more fluid to pass. This augments fluid supply and allows for higher flow rates. It further enhances cooling when emulsifying with the tip not fully occluded. Because of the thin bore and thus high resistance of the shaft, a higher vacuum is required to produce the flow rate desired. Similar to a venturi pump, this provides for a flow-rate-dependent un-occluded primary vacuum, or vacuum preload at the tip opening, which enhances followability and promotes tip occlusion while reducing rise time to the preset occlusion level. On the other hand, increased inflow of infusion fluid combined with the increased flow resistance in the aspiration channel suppresses surge when occlusion breaks.
Clinical experience and ongoing studies fully support the efficiency of this technically elaborated new phaco tip, which enriches the control provided by a peristaltic pump with a vacuum preload as a widely appreciated feature of the otherwise more aggressive venturi pump. Of course, the tip may also be used with a venturi pump.

Dr. Giovanni Prosdocimo
Ospedale di Conegliano, Italy
The new easyTip®2.2mm by Oertli® is based on the successful design of the CO-MICS 2 needle, combining the advantages of the 20G tip (good emulsification, short operation time) with the fluidic properties of the recently developed, non cylindrical, CO-MICS 2 shape.
The new tip is optimized for maximum chamber stability and improved followability and holdability. These last two factors are critical aspects of efficiency in any cataract procedure and are also related to safety issues. They refer to how lens material remains at the tip so that large pieces of nucleus are not bouncing around the anterior chamber and the surgeon does not have to reacquire them, increasing the risks of inflammation, endothelia damage and capsular breakage. Increased fluidics also minimizes the trampolining of the posterior capsule occurring with fluctuations in chamber depth, thus reducing the risk factors for posterior vitreous detachment, retinal tears and macular edema, particularly in patients with high levels of myopia.

Apart from the tip and the machine settings, the usual surgical techniques do not need to be modified; the easyTip®2.2mm can be used in nearly all cataracts and combines the ease and astigmatic neutrality of traditional small incision phaco with a very high degree of safety and efficiency.

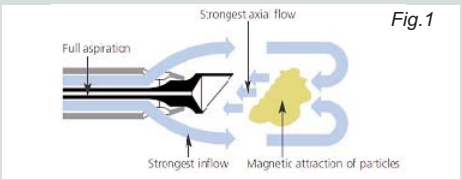


Fig.1

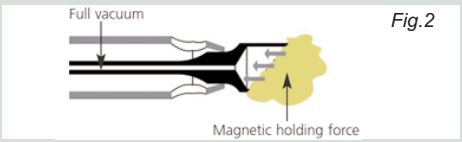


Fig.2

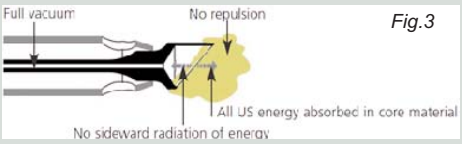


Fig.3

Fig.4

Fig.5

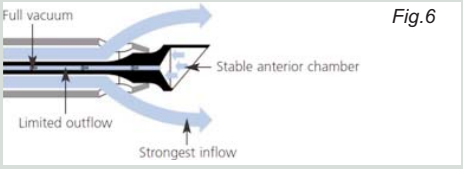


Fig.6

My Journey with Medicals International

I am proud to share with you my journey with **Medicals International.** First of all I would like to introduce myself to you, I am **Ala'a Megdady**, 27 years old, I am Biomedical Engineer. I graduated in 2006 from Jordan University of science and Technology. Currently still single, I had the privilege of being appointed at **Medicals Internationa**l in a three months after graduation and I started my journey as a territory manager for C.L. in the Jordan market.

I had extensive training both in product knowledge and selling skills through my double visits with my Sales manager that enabled me to tackle any obstacles that confronted me. After a short period of time I found myself responsible for the whole market when the sales manager decided to quit **Medicals International**, but with perseverance and determination we managed to take the market from one success to another growing our market share and business throughout the country.

After a few more months I was approached by Walid with a new opportunity and a bigger challenge asking me if I wanted to work in Saudi Arabia. I saw the offer as another step closer to the carrier path I would like to have in **Medicals International.** I knew the challenges were bigger but also knew that the reward for taking the obstacles would be much more recognized, so I decided to accept the offer. Since my arrival here in Saudi Arabia I started assessing the situation and studying the market trying to see what would be the fastest way to start growing our business in this big market. Small successes started happening and the best is still to come. The potential here is so big and the sky is the limit. I am sure you all know I was recently offered the position of associate sales manager C.L. in central Saudi Arabia. The challenges may be big but our determination is even bigger to build a team here in Saudi Arabia that will take our business to higher levels.

Finally I would like to thank Walid for running his company in a way that offers so many opportunities to a guy my age with my experience just because he sees potential for growth and the spirit of determination. I am proud to say **I WORK IN MEDICALS...**

Ala'a Megdadi,
Associate Sales Manager, CL
Riyadh office

Medicals Optical Club – 4th meeting

Medicals International held its 4th Medicals Optical Club (MOC) meeting on December 11, 2008 at its premises in Mansourieh.

The speaker for this meeting was **Mr. David Nicoll, International Sales Manager at Seiko Optical, UK.** The lecture covered Seiko Synergy progressive lenses, their advantages and benefits to the patients, as well as the practitioners' benefit from approaching sales of high value progressive lenses.

Two **MOC** members won a Seiko watch offered by **Mr. Nicoll** on behalf of **Seiko Optical** as well as a small gift was granted to the top three optometrists.

The attendants shared a friendly dinner with Medicals team and David Nicoll at **Café Blanc – ABC.**

Rita Chehwane,
Senior Sales Manager,
Beirut Office

Medicals International

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Medicals International

We think of the patient first