During the IX Congress of the Middle East African Council of Ophthalmology (MEACO) meeting in Dubai 2007, a lot of activities happened. Refractive surgery had important and distinguished activities among this meeting.

On the first day Thursday 29th March 2007, there were four courses concerned with refractive surgery, namely LASIK, optimized clinical results; Management of post-keratoplasty refractive errors; Refractive surgery -- my best save / my worst case; and Phakic IOLs.

On Friday 30th March, a number of symposia were concerned with refractive surgery.

In the first Symposia named LASIK; State of the art, a great number of presentations discussed LASIK from various aspects.

Conventional LASIK and its complications were discussed. Decenteration is an important complication following LASIK, so Paolo Vinciguerra showed how to differentiate between real decentration from pseudodecenteration following LASIK by proper analyzing the topography. Mohsen Ramazanzadeh discussed the results of correcting hyperopic astigmatism with the cross cylinder technique. George Alio presented 10 years follow up and outcomes of LASIK and PRK in 1000 cases.

The new Femtosecond laser has nowadays a growing role in refractive surgery. Vance Thompson discussed the structure and biomechanical stability of Femtosecond laser created flaps. Sinan Goker discussed the application of the Femtec 40 HZ Femtosecond laser which can be used not only as a refractive procedure, but also in various corneal procedures as in ICRS, keratoplasty and astigmatic keratotomy. Hani Sakla discussed the differential diagnosis between the transient light sensitivity syndrome (TLSS) and diffuse lamellar keratitis (DLK) after IntraLASIK.

Wavefront technology is one of the main advances in refractive surgery. Steve Schallhorn discussed predicting the visual performance of optimized and WFG LASIK in eyes with low preoperative higher order aberrations. Nada Jabbour discussed the correlation between vision and corneal shape in laser vision correction using wavefront technology. Tarek El-Naggar compared between conventional LASIK and wavefront optimized corneal ablation. Jan Venter presented wavefront guided enhancements using the NIDEK NAVEX platform in symptomatic eyes previously treated with LASIK or PRK.

In the second Symposia named Phakic IOLs update, distinguished presenters discussed the updates in Phakic IOLs.

John Vukich discussed the role of Phakic IOLs in a comprehensive refractive surgery practice. While Jose Guell compared between Phakic IOLs and LASIK in high myopia. Alaa El-Danasoury presented his 1 year result of toric ICL for the correction of compound myopic astigmatism in patients with stable keratoconus. Tarek Abu-Zeid presented one year result of Veriflex.

New Phakic IOLs were there in the presentations, Joseph Colin presented the clinical results of the AcrySoftR Phakic IOL and Icare Phakic IOL. Philippe Sourdille discussed Icare Phakic
IOL sizing for safety. Abderrahmane Rais talked about Icare Phakic IOL as a new approach in refractive surgery. Erik Mertens discussed the Visian TICL.

Michael Knorz discussed wavefront aberrations after implantation of the Verisyse Phakic IOL. Comparing the results and complications of 700 consecutive Artisan / Artiflex Phakic IOLs was presented by Jan Venter.

Long term results of Phakic IOLs were presented by various doctors. Salah Mahjoub presented his 3 years follow up of toric Artisan in early keratoconus. Guillermo Avalos presented his 10 years experience with posterior refractive lens “PRL”. Baha Toygar presented also his long term results with toric phakic IOLs.

In the 3rd Symposium named Advanced Surface Ablation, a lot of presentations discussed surface ablation and new advances in it.

Epi-LASIK is a new surface ablation procedure. Thanh Hoang-Xuan discussed the rationale of Epi-LASIK. Osama Ibrahim presented wavefront guided Epi-LASIK for mixed astigmatism using Moria EpiK and Visx Star S4 custom Vue with IR. Tamayo Gustavo compared Epi-LASIK with Moria M2. While Jose Guell compared PRK to Epi-LASIK with Amadeus II and MEL 80. On the other hand Ahmed El-Massry compared 6 months results of Epi-LASIK with LASIK using custom view corneal ablation. Tamer Gamaly discussed Epi-LASIK for patients prone to haze. Ermanno Scerrati presented his 1 year comparative results between Epi-LASIK vs. PRK from both the histological and refractive effects. Mohamed Wagih showed the evaluation of safety and predictability of Epi-LASIK for moderate myopia and myopic astigmatism. And CARLOS VERGES presented his comparative analysis between PRK, Epi-LASIK and LASIK with thin flaps as a balance between safety and efficacy.

Presentations of the PRK as a surface ablation was discussed by Hamid Khakshoor for treating moderate and high myopia with or without astigmatism. Mohammad Rabie presented Mitomycin-C induced corneal melting after surface ablation. Mohammad Moallem showed a case of corneal opacity 10 years after PRK.

Finally Gatinel Damien talked about LASIK or surface ablation for the eyes with early form fruste keratoconus. And John Allan Vukich talked about Fourier vs. Zernike the strengths and limitations of two methods of wavefront reconstruction.

The last Symposium of this day was Refractive Surgery Outcome I, where the outcome of various refractive procedures was discussed.

Paul Rosen discussed the retina and refractive surgery. LASIK results were discussed by Baha Toygear as he presented complex re-treatments using the Visx Customvue, while Ahmed Sedky presented optimized treatment using Allegreto. Amr Abdelbari presented the evaluation of contrast sensitivity before and after LASIK. Khaled Abdelrahman presented the predictability of 110 microns flap thickness of IntraLase in 100 myopic eyes.

Phakic IOLs results were presented by various doctors. Ahmed Barada presented the efficacy and safety of Kelman Duet phakic IOL. Hassa Al-Arrayed showed the Intraoperative difficulties and postoperative complications associated with Artisan phakic IOL implantation in the initial cases.

Elias Warrak presented his 2 years follow up of ICRS implantation in 114 eyes with keratoconus.
On Saturday 31st March, a symposium named Refractive Surgery Outcomes II included interesting presentations.

Mounir Khalifa talked about the updates in customized ablation, while Mohamed Shafik Shaheen presented the analysis of corneal wavefront, as a new frontier for customized ablation. He also presented the transepithelial PRK/PTK with adjuvant MMC for complicated cases following keratorefractive procedures. Alaa Ghaith discussed wavefront optimized versus wavefront guided LASIK in the treatment of myopia and myopic astigmatism. Hesham Eissa presented the difference between multiple vs. single diameter excimer laser beam in creating precise ablation spot. Retinal nerve fiber layer changes measured by OCT in cases of myopia corrected by LASIK, was presented by Fathi Saleh. Rawia Abdel Hakim presented the correction of high myopia with phakic anterior chamber intraocular lens. Elias Jarada discussed the mathematical modeling of corneal remodeling after INTACS surgery in keratoconus, which he consider it a new topography guided nomogram for INTACS surgery. Finally Islam Hamdy discussed the effect of M2 suction ring on Peribulbar

On the last day Sunday 1st April, interesting symposia were concerned with refractive surgery.

In the first symposium hyperopia results and custom LASIK, Gorge Waring talked about the update on hyperopic LASIK. Omid Kermani talked about centration of hyperopic ablation. Ahmed Shojaei presented the optimum nomogram for hyperopic correction. On the other hand Alireza Habibollahi discussed the correction of residual hyperopia and astigmatism after cataract surgery with conductive keratoplasty.

Customized ablation is an important issue now in refractive surgery, so Paolo Vinciguerra presented the results of OPDCAT vs. CATz custom ablation with NIDEK EC 5000 and final fit OPD, and Gorge Waring presented topographically guided LASIK treatment of myopic astigmatism. Hesham Gaber showed the long term follow-up of Q value adjusted topography-guided ablation using the Allegretto wave eye-Q excimer laser.

Iris registration is another important issue. Gustavo Tamayo presented the clinical significance of iris registration: compensation for pupil centroid shift versus cyclotorsional rotation, while Salman Habash presented the amount of cyclotorsion movement between preoperative measurement and laser ablation.

Combining different refractive procedure is an important issue nowadays. Michael Knorz presented IntraLase bioptics and tecnis multifocal IOL in hyperopic astigmatism, while Carlos Verges presented biopics cobining laser (Q adjusted) and IOLs. Magdy Oteifa talked about correlation between topographic changes after LASIK and visual function. Incidence of posterior corneal ectasia after LASIK vs. PRK was presented by Khaled Nagy.

Presbyopia was the name of the second symposium in this day. Presbyopia remains the challenging issue in refractive surgery.

Guillermo Avalos talked about LASIK presbyopia treatment. Alain Telandro presented his 5 years experience with pseudo accommodation LASIK for presbyopia, while Mohamed Hantera presented his 1 year follow up of the same procedure. Sameh El Helw presented his long term follow up of asphericity adjusted LASIK "Custom Q" for presbyopic correction.
Monovision LASIK in presbyopic myopes and hyperopes was a presentation by Hassan Al Arrayed, which is another way of treating presbyopes.

Lens refractive presbyopic surgery is another way of treating presbyopia, so Goerge Waring presented his personal experience with the Crysta lens accommodating IOL, Hisham Soliman presented refractive lens exchange and Restor multifocal IOL for correcting myopia or hyperopia in presbyopic patients, while Saleh Saif showed patient satisfaction and halo perception following presbyopic lens exchange (PRELEX) in younger non cataractous eyes, and Ahmed Assaf presented his 9 months follow up of custom match with Rezoom and Tecnis ZM 900 IOLs.

The last symposium was advanced LASIK, in which a lot of different presentations were presented.

Michael Knorz talked about keys to success in wavefront-guided ablation. Nada Jabbur presented the pearls in transitioning to a refractive practice. To choose the best method of refractive surgery Mehrdad Mohammadpour presented the pearls of doing this. Mahfouth Bamashmus talked about reasons for not performing LASIK in refractive surgery candidates. Mounir Khalifa presented the updates of multifocal ablation in presbyopic LASIK. Samar Al-Swailem presented the outcome of cases performed by novice LASIK surgeons in structured supervised setting. Mohamed Hosny compared higher order aberrations after LASIK using disposable microkeratome 130 and 90 micron heads. Tarek Abdulsamie compared the predictability of flap thickness using Moria M2 metal head 130, single use head 90 and 130 with both slow and fast speeds. Adel Abdel Fatah talked about one vs two step LASIK for patient post keratoplasty. Tamer Massoud presented Q-value adjusted LASIK for the correction of mixed astigmatism. Ahmed Sedky showed the clinical results of high speed LASIK with Allegreto eye-Q. Elias Jarade showed the Intralse-assisted under surface ablation for LASIK enhancement in eyes with thick flaps and thin residual stromal bed.