The official Newsletter of the

VITREO RETINAL SOCIETY - INDIA

Official Website : www.vrsi.in

January - April 2013

Dr Mangat R Dogra

President - VRSI

From the President's Desk

Dear Friends

At the outset, I would like to thank all members of Vitreo Retinal Society- India (VRSI) for electing me as a President of this prestigious society for next two years. I express my gratitude to my illustrious predecess or Dr Gopal Lal Verma for taking this society to greater heights. He was instrumental in organising a very successful Asia Pacific Vitreo Retinal Society Congress with VRSI at Hyderabad in December, 2011. He has set a very high benchmark for me to follow. With your blessings, I will try my best to bring all vitreoretinal specialists of this country under the umbrella of this society and raise its stature further.

On behalf of VRSI members, I would like to thank and put on records the efforts of Dr S Natarajan who brought out regularly excellent issues of VRSI news letter since 2008. There is change in editorial team after almost five years. Dr V Narendran Convener Scientific Committee VRSI has taken over this task and is going to bring out this and future issues of VRSI news letter. This issue highlights some aspects of last VRSI conference held at Guwahati in December, 2012. It also announces the next VRSI conferenceto be held between 12th to 14th, December, 2013 at Lavasa International Convention Centre which is close to Pune.

Main article in this issue is on "OCT imaging through gas for post-operative protocol of macular hole" which has been contributed by Dr Taji Sakamoto, professor of ophthalmology at Kagshima University, Japan. He was an invited speaker during the last VRSI conference at Guwahati. The other two articles on "navigated laser photocoagulation system (NAVILAS)" and " Treatment Options for Myopic foveoschisis- an update " are contributed by Dr Jay Chablani VR consultant at L V Prasad Eye Institute Hyderabad and Dr Pramod Bhende form Shankara Nethralaya, Chennai respectively.

VRSI has taken a lead to collaborate with other national and international societies. VRSI has been invited by the European Society of Retina Specialists (EURETINA) to organise a symposium during the next Annual EURETINA Congress to be held from 26th to 28th, September, 2013 at Hamburg, Germany. We are also invited by Uveitis Society of India (USI) to organise a symposium on behalf of VRSI during their Annual Conference to be held at Mussoorie, on 27th and 28th, September, 2013. This is reciprocal arrangement with Uveitis Society of india. They will organise asymposium on uveitis during the next VRSI conference at Lavasa. This year, Nataraja Pillai Award will be bestoved on Prof. Alan Bird emeritus Professor at Moorfield Eye Hospital London. We are delighted to nominate Prof. R V Azad Chief Dr P R Centre (AIIMS) New Delhi for VRSI B. Patnaik Award. Both invitees would deliver their award lecture at the next VRSI conference at Lavasa.

I would like to thank editorial team lead by Dr V Narendran and all contributors of this issue. I hope you will find current issue of news letter enriching and useful. I hope that VRSI news letter would bring out latest informationin simplified manner for benefit of all VRSI members.

With best wishes

Dr Mangat R Dogra

President Vitreo Retinal Society-India

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Dr. A Giridhar
Honorary Secretary

From the Honorary Secretary's Desk

Honorary Secretary's Message for the 1st Issue of VRS-I newsletter for the year 2013

Dear Colleagues,

Warm greetings from the Governing Council of the Vitreo Retinal Society-India!

This is the first Newsletter for the year 2013 being brought out by a team of new office bearers under the Chairmanship of Dr V Narendran. I hope you will find it interesting.

The annual meeting of the Vitreo Retinal Society-India held at Guwahati was a great success; thanks for the sincere efforts of Dr Harsha Bhattacharjee, Dr Satyen Deka and a team of Doctors from Sankaradeva Nethralaya. We had a very good attendance and the scientific program prepared by Dr NS Muralidhar was appreciated by everyone.

We are now in the process of coordinating the arrangements for the next annual meeting of the VRS-I to be held at Lavassa International Convention Centre, near Pune. We had inspected the venue last month and we felt that this is an excellent place to have the conference and also to relax in the week end. Members can therefore plan to come with their families and I am sure that you will have a wonderful time.

I would like to congratulate two of our members viz. Dr S. Natarajan and Dr Tara Prasad Das who were conferred with the Padmashree by the President of India in the year 2013. Congratulations to Dr Alay Banker from Ahmedabad who received the prestigious Col. Rangachari Medal for the best paper presented at the last APAO-AIOS held at Hyderabad.

One CME was held under the aegis of VRS-I this year at Armed Forces Medical College, Pune and we are looking forward to more applications for conducting similar CMEs by our members elsewhere in the country.

With best wishes!

Dr. A Giridhar
Honorary Secretary

Dr. V. Narendran
Convener Scientific Committee
VRS-I

From the Convener Scientific Committee Desk

Dear Colleagues,

At the outset I'll like to thank the Governing Council of VRS-I for electing me the Convener Scientific Committee. With the active and enthusiastic cooperation of my colleagues carrying forward the good work of my predecessor Dr. Muralidhar should be easy.

We are happy to announce the 22nd Annual VRS-I Conference, to be held between 12 to 14 December, in Lavasa near Pune. The abstract submission website is www.vrsi.co.in and submission begins from 1st May 2013 till 31st July 2013. I encourage to all the VRS-I members (especially the youngsters) to submit their abstracts and welcome one and all to this picturesque town of Lavasa.

Congratulations to Dr. S. Natarajan and Dr. Taraprasad Das for receiving the prestigious Padmashri Award from the President of India.

The editorial board has as usual come up with an interesting selection of topics for everyone.

Warm regards,
Dr. V. Narendran
Convener Scientific Committee,
VRS-I.

Vitreo Retinal Society of India congratulates Dr. S. Natarajan & Dr. Taraprasad Das for being conferred Padmashri Award 2013 by the President of India.

Dr. S. Natarajan

Dr. Taraprasad Das

Dr. Taiji Sakamoto, MD, PhD

OCT imaging through gas for post-operative protocol of macular hole

Current maculae hole (MH) surgery consists of pars planavitrectomy, eliminating all traction around the hole, gas tamponade and posturing, which has increased the closure rate to approximately 90%. Recently, no posturing or short posturing is becoming a trend of post-operative protocol. Despite these improvements, there are still concerns that a shorter duration of posturing might lead to failure in some eyes.In order to maximize the success rate of MH closure rate while minimizing patients' burden, an individualized post-operative program would be much more desirable than the uniform program. The key to an individualized posturing regimen is anearly evaluation of MHs status during the gas-filled period after surgery (gas-OCT). We have previously reported the reliability of SD-OCT evaluation in a gas-filled eye for MH closure evaluation.[1,2] In my lecture at Guwahati in December 2012, I introduced some techniques of this protocol and showed some cases. The first case was 68 yo female with stage 3 MH (Fig 1A). After the regular vitrectomy, SD-OCT was performed through a gas. Using an old method, macular area was not clearly seen (Fig 1B), however, the new method showed MH closed on day 1 (Fig 1C). The second case was a 73 female with stage 3 MH (Fig 2). On day 1, the old method showed MH closed (Fig 3A), but the new method revealed MH open (Fig 3B). The additional 1 day posturing closed MH (Fig 3C). Three months after surgery, MH remained closed with visual acuity of 1.0 (Fig 4). The new technique to observe MH using gas-OCT is very useful for deciding post-operative protocol.

Dr. Taiji Sakamoto, MD, PhD
Kagoshima University, Japan

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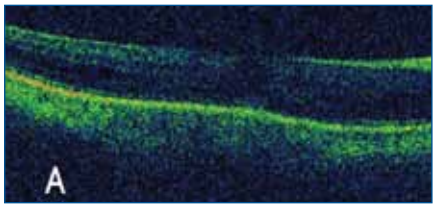

Fig 1a

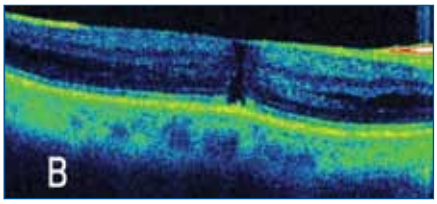

Fig 1b

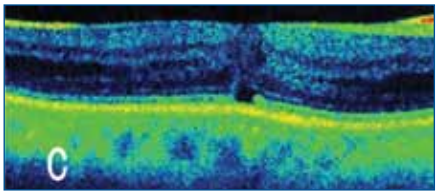

Fig 1c

Fig 2

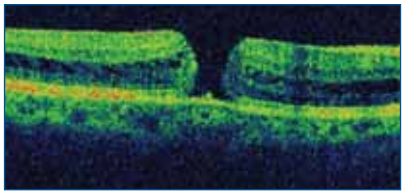

Fig 2

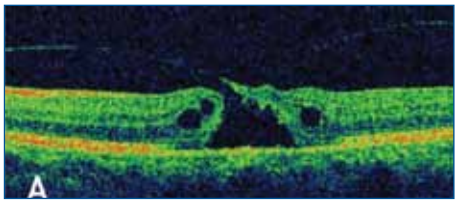

Fig 3a

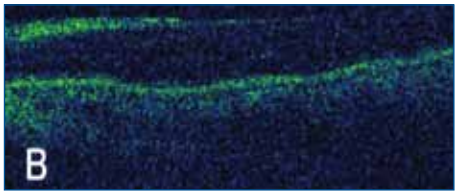

Fig 3b

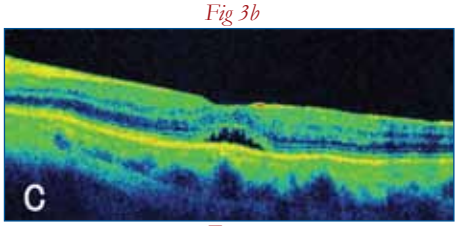

Fig 3c

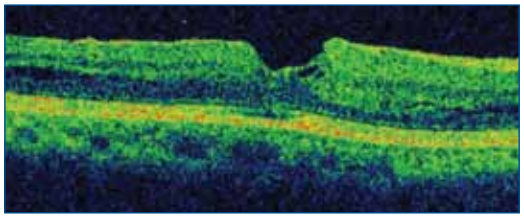

Fig 4

Navigated laser photocoagulation system (NAVILAS)

Dr. Jay Chhablani

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Gerd Meyer-Schwickerath introduced retinal photocoagulation therapy using the xenon arc photocoagulator during the 1950s, since then there has been a constant improvement in the laser wavelength and delivery systems.[1] Laser photocoagulation plays an important role in the treatment of many retinal conditions, such as diabetic retinopathy, vascular occlusions, retinal tears and other ocular diseases. Various randomized trials have evidently established its role in diabetic retinopathy, both macular edema as well as proliferative diabetic retinopathy.[2-4]

While using conventional slit lamp laser system for focal laser photocoagulation; treatments often rely on the physician's ability to translate the information from fluorescein angiography (FA) images and to superimpose these interpretations onto the live fundus view during laser treatment. Limited view of the fundus, inverted fundus image, use of contact lens and associated pain are the other common drawbacks of conventional slit lamp delivery systems.

Laser photocoagulation delivery system has advanced, with the introduction of pattern scanning laser system, PASCAL laser (TopconMedical Laser Systems, Santa Clara, CA, USA). With PASCAL laser system multiple laser spots can be applied in various patterns with single foot pedal press.[5] This significantly improves patient comfort and reduces treatment duration. However, the limited slit view and inverted fundus view are still the limitations. Documentation with both conventional slit lamp and PASCAL laser is still the hand-made drawings with inherent deficiencies. Training through these systems involves supervision through monocular side viewing scope and hand-made drawings.

Navigated laser photocoagulation (NAVILAS, (OD-OS, Teltow, Germany), a new integrated laser system that combines color fundus photography, fluorescein angiography, and infra-red imaging with a target locked frequency-doubled solid-state laser (wavelength 532nm).[6]

Figure 1

This advanced system systematic laser treatment including 4 steps: imaging, planning, treatment delivery and documentation using a single device.

1. **Image acquisition**: As the first step, color fundus or infra-red images are acquired using mydriatric or non-mydriatric camera (30 or 50 degrees) while watching the live view on the computer screen. The images are of high-resolution because Navilas® system obtains real-time images with eye tracking at a rate of 25 images per second.

2. **Planning**: Navilas® system offers, "computer based planning" for laser photocoagulation. The clinician marks the "no treatment zone", desired targets such as focal laser for microaneurysm or grid for diffuse macular edema on the computer screen image using either a touch screen or the mouse. (Figure 1) Wide range of spot size from 50 µm to 1000 µm with a pulse duration ranging from 10 mSec to 1000mSec is available and which can be individualized for each laser spot. Accuracy of the navigated laser treatment has been reported to be 92% compared to 72% that of the conventional laser.[6] Planning on the computer screen by trainees can be easily supervised which makes Navilas® system an excellent teaching tool and ensures patient safety as well.

Any image obtained on other imaging systems such as indocyanine green angiogram or macular thickness map on spectral domain optical coherence tomography, autofluorescence can be easily imported on to Navilas® system to allow multimodal image integration for treatment planning.

3. **Treatment**: The treatment plan is then registered on to the live fundus image (infrared or color) of the retina, facilitating more precise positioning of laser spots. The clinician performs 532nm laser photocoagulation on the intended targets while watching the live video on the computer screen. Treatment is performed in infrared mode, which is more comfortable for the patient than the bright white slit lamp bright light. Treatment is performed on upright images, so it avoids any confusion as encountered in conventional laser treatment due to inverted image. The treatment does not require use of contact lens or topical anaesthesia, increasing comfort for both, clinician and patient.[7] Clinician can toggle between the color fundus view and infrared view to determine the intensity of each burn and adjust the power as necessary. In case of any sudden movement of the eye, the registration fails and the laser treatment stops immediately. The advantage of eye tracking during treatment makes Navilas® system a safe and time-efficient treatment.[8,9] The Navilas also automatically advances the aiming beam from the marked site to the next, after each photocoagulation spot until they are all treated. The precise placement of the laser allows lower total energy delivery, with the potential for less collateral damage.[8]

Figure 2

4. **Documentation**: At end of the treatment, Navilas® system provides digital documentation of the entire procedure including treatment plan, laser parameters, post-treatment color photo showing treated areas. This accurate information helps for follow up of subjects especially when repeat treatment is required. (Figure 2)

Panretinal photocoagulation with Navilas® system: Wide-angle contact lens for panretinal photocoagulation using Navilas® system provides a wider view almost up to ora serrata. (Figure 3) Navilas® system provides a uniform circular, equally intense and focused peripheral burns and faster PRP treatment compared to PASCAL. Use of navigated laser during panretinal photocoagulation improves the safety as well.

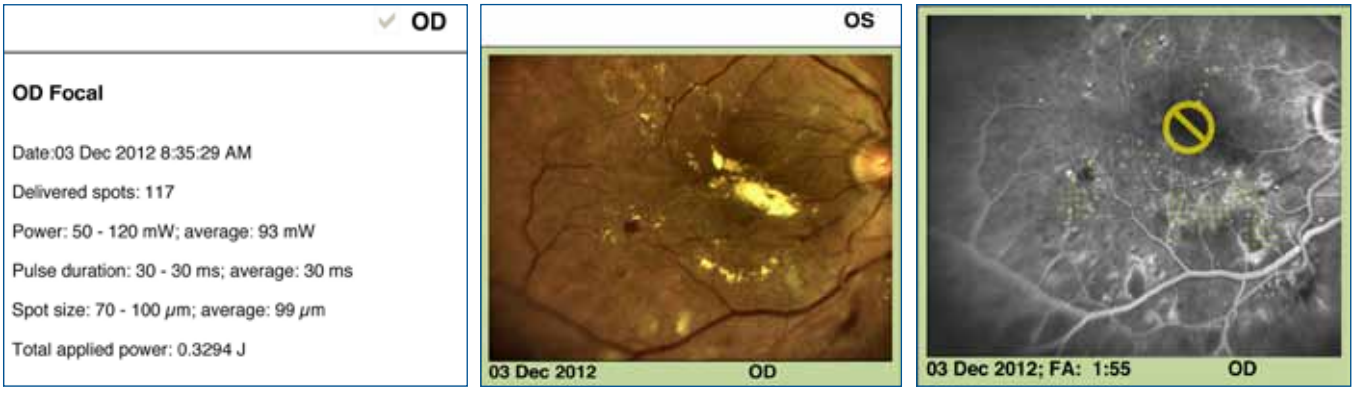

Figure 3

Limitations of Navilas® system: There are few limitations of NAVILAS including no stereoscopic view, unavailability of indocyanine green angiography (ICG)/optical coherence tomography (OCT). However, ICG and OCT images can be easily integrated into the Navilas® system for treatment planning.

In conclusion, Navilas® system provides use of multimodal imaging on a computer based treatment in a safe, efficient and accurate manner. It has several advantages over conventional laser systems such as improved patient/physician comfort, improved accuracy, excellent documentation and enhanced training. Navilas® system revolutionizes laser photocoagulation treatment and indicates the beginning of new era in vitreo-retinal disorders' management.

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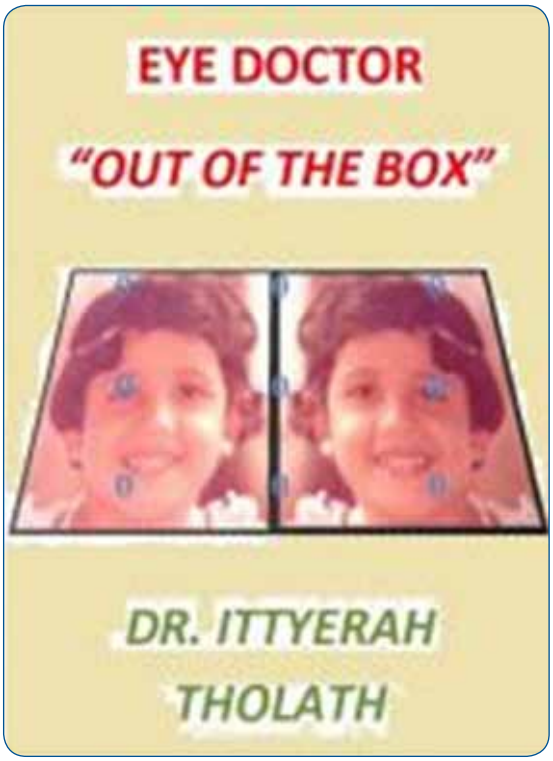
Eye Doctor ' Out of the box '

Fiction >> Science fiction >> General
Fiction >> Themes >> Motifs >> Medical



By Ittyerah Tholath
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Short Description

A harmonious Fusion of Imagination with Knowledge aimed at eliminating old age sufferings and achieving youthful Life. Included in this is a brilliant 'Out of box' idea to tame cancer. A by-product of the implementation of this out of the box idea, could be an escape from deth. Here is a better substitute for longevity and old age extension. The young age is extended and double by Binary fission.

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Review Article

TREATMENT OPTIONS FOR MYOPIC FOVEOSCHISIS - AN UPDATE

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ABSTRACT:

Myopic foveoschisis (MF) is one of the major causes of poor vision in highly myopic eyes over 40 years of age.

Its prevalence has been reported between 8% and 34%, in various studies. Pathogenesis of MF remains uncertain. Improved resolution and the quality of OCT imaging, helps not only in early diagnosis but has improved our ability to understand the patho-anatomic features of this condition

In recent years, various treatment modalities have been described in the literature for the treatment of MF. This review article aims to provide an overview and to summarize the current treatment options for MF.

KEY WORDS: Myopic Foveoschisis, optical coherence tomography (OCT), vitrectomy, Internal Limiting Membrane Peeling, Gas Tamponade

INTRODUCTION:

The term myopic traction maculopathy wasused first by Panozzo and Mercanti.[1] To describe a collection of pathologic changes associated with highly myopic eyes, including macular retinoschisis (MF), foveal detachment, and macular hole.

Myopic foveoschisis, also known as,macular retinoschisis, or macular schisis, is defined as a separation of retinal layers. These changes are seen in 8% - 34% of eye with pathologic myopia and are more common in presence of posterior staphyloma.[2-5] MF predominantly involves outer retinal layers. If left untreated, more than 50%of eyesdevelop macular holes or posterior pole retinal detachment (RD) within two or more years of follow-up and eventually retinal destruction.

Before the advent of optical coherence tomography (OCT), this disorder was difficult to diagnose, and surgery typically was performed for presumed foveal detachment or macular hole. Takano and Kishi, in 1999, using OCT, first described this new entity, which they termed fovealretinoschisis.[5] As the resolution and the quality of OCT imaginghas improved, so has our ability to understand the pathoanatomic features of this condition.

PATHOPHYSIOLOGY:

As suggested by the name myopic traction maculopathy, it is widely accepted that a pulling or stretching force is the primary pathologic mechanism in this disorder. With increasing age, the height of staphyloma increases, leading to stretching and thinning of the posterior retina. The precise cause for this traction, however, is still debated. Few researcher reported several preretinal structures as the possible source of traction. However others believe that certain intrinsic elements are responsible for myopic traction maculopathy. Probably it is a combination of both.

The nontractional factors debated were, decreased pumping capacity of RPE and alterations of retinal cell adhesion properties. However these factors are questionable considering the excellent anatomical outcome in these eyes once traction is relieved.

Preretinal structures as possible source of traction are -

- Incomplete or partial posterior vitreous detachment (PVD) with vitreomacular adhesion
- Remnant cortical vitreous plaques after PVD
- Epiretinal membrane (ERM)

Preretinal structures are mainly responsible for antero-posterior traction with added tangential traction.[1, 2, 4]

Elements intrinsic to thinned myopic retina are -

- Taut internal limiting membrane (ILM)
- Shortened retinal arterioles

Either of the two could lead to tangential traction and various pathologicconsequences[6-9] and eventually lead to partial or full thickness macular hole and staphyloma associated retinal detachment.

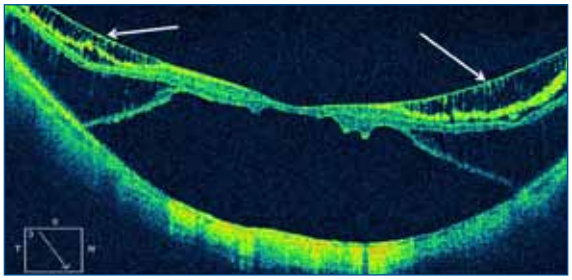

Figure 1-Tractional ILM detachment (white arrow) with fovealschisis and retinal detachment.

TREATMENT:

The lack of consensus for a single pathophysiologic mechanism has resulted in a debate regarding the best approach for treatment in eyes with MF. Probably, vitrectomy with relief of antero-posterior and tangentialtraction is the most logical and accepted treatment modality.

The possible options available are-

1. Observation alone
2. Macular Buckling
3. Cataract extraction alone
4. Vitrectomy alone
5. Vitrectomy + ILM peeling
6. Vitrectomy + ILM peeling + Gas tamponade

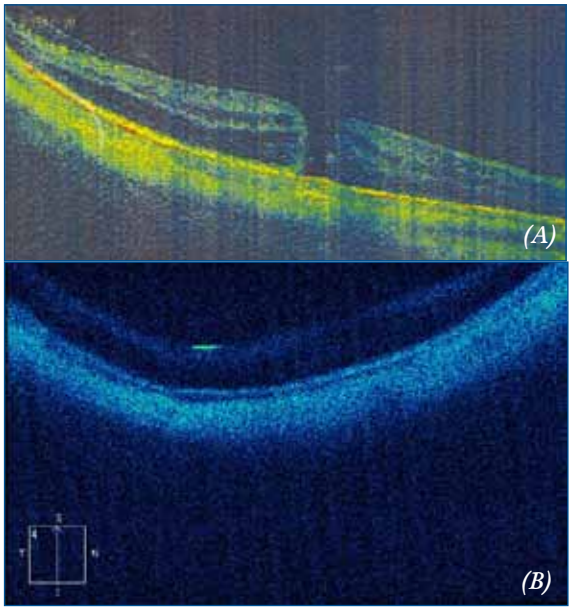

Figure 2. - 48 years high myope with macular hole before (A) and after vitrectomy, ILM peeling and gas tamponade (B)

1. Observation:

The natural course and evolution of foveoschisis and the level of intraretinal cleavage is difficult to predict. It is also difficult to predict which patient will have a progressive course. MF may remain stable for many years without affecting vision.

In one study,[10] on OCT scans, of the 29 eyes, nine (31%) underwent little or no change in their foveoschisis profile over more than one year of follow-up and in two eyes, foveoschisis remained completely unchanged for more than four years.

Probably in eyes with stable and good vision, no obvious foveal traction and no progression of MF on OCT can be observed. Recording vision and serial OCT on every follow up visits will be useful in planning subsequent management in these eyes.

2. Macular buckling:

Before the advent of vitrectomy, macular buckling and/or scleral re-inforcement werethe only available option for the management of MF and macular hole with RD. Few researchers have reportedreasonably good anatomical and functional outcome in these eyes followingmacular buckling. Extra ocular approach to the posteriorly located macular area and placement of buckle there is technically more challengingand haspotential risk of complications.

With better understanding of pathoanatomy and availability of newer surgical techniques and refined instrumentation,vitrectomy (20, 23 or 25G) alone or in combinations with ILM peeling with/without internal tamponade have now become the treatment of choice leading to better visual outcomes but reducing the riskof complication associatedwithmacular buckling alone.

3. Cataract extraction alone:

In high myopic eyes, cataract appears at an earlier age and may progresses more rapidly.[11, 12] However, cataract extraction would increase the risk for posterior vitreous detachment, macular oedema, and retinal detachment, possibly due to disturbance to the vitreous body during surgery[13-16] or thereafter (endophthalmodonesis)

Highly myopic eyes, even when combined with a macular condition such as MF, may require cataract extraction to improve vision and correct refraction.

One of the studies[17] hass hown that, after cataract surgery, there was immediate improvement in the BCVA in patients with MF. The vision continued to improve overnext 3 months. By 15 months, the vision got stabilized in most patients. Although the central foveal thickness increased after cataract extraction, authors reported that, in most patients the macular morphology remained fairly stable without emergent changes for 15 months.

This implies that clinicians can perform cataract extraction in eyes with MF and then manage the macular condition later, if necessary, dependingon course of the foveoschisis

4. Vitrectomy alone:

SD OCT gives an opportunity for more detailed analysis of vitreo-macular interface and intra-retinal structures in eyes with MF, such as defects in the photoreceptor layer and presence of foveal detachment. The risk of worsening of vision increases when MF is associated with premacular structures such as ERM or a partially detached vitreous cortex and foveal detachment. Vitrectomy alone[18] may help in resolution of macular abnormalities without peeling the ILM in these eyes.

Status of the macula on SD-OCT should be taken into consideration, alongwith otherrelevant clinical information such as visual acuity and axial length,while deciding the timing of surgery for patients with MF. Photoreceptor layer defects and underlying irregular choroidal surface on the OCTmay predictpoor postoperative vision in these eyes despite successful surgery.

In eyes, with threatened disruption ofthe outer retina, presence of ERM and longer axial length, early surgery may prevent macular hole formation with overall good final anatomical and functional outcome.

5. Vitrectomy and internal limiting membrane (ILM) peeling:

The need for ILM peeling and gas tamponade is debatable

Instead of ILM peeling, surgeons have tried to remove adherent plaques of vitreous or indistinct vitreous sheets using various techniques. ILM peeling is probably not essential for the eyes with obvious preretinal traction. However, ILM peeling ensures complete removal of any possible tractional components, such as the overlying premacular vitreous cortex and fibroglial components on the surface of the ILM.

Wollensak et al[31] in their study, have reported that the biomechanical rigidity of the ILM increases with age and peeling of ILM increases retinal compliance by 53.6%. This reduced rigidity may help retina to conform better to the staphyloma[20, 26, 27] with resolution of MF.

Many studies demonstrated that vitrectomy with ILM peeling results in resolution of myopic foveoschisis and subsequent visual improvement in over 80%of patients within 6 months.[19-22]

Sayanagi and associates[22] reported 2 eyes, with persistent MFfollowing primary vitrectomy without ILM peeling. These eyes were treated successfully by reoperation with complete removal of vitreous cortex and ILM peeling. These observations may support a beneficial role for ILM peeling in the eyes with MF.

Other investigators have demonstrated comparable results, both anatomical and functional,in groups with and without ILP peeling[23-25]

Investigators have[1, 2] demonstrated that, in certain eyes, no preretinal structures can be identified before or during surgery. In such eyes, relative noncompliance of the inner retina is probably due to the highly elastic nature of ILM, making it relatively taut

and is responsible for resistant to permanent stretching of the retina to conform with deformed sclera within the staphyloma. Alternatively, it may be the result of microscopic cellular and collagen proliferation on the surface of the ILM that develops after PVD and may not be detectable clinically.[28, 29] In either case, peeling of the ILM ensures complete removal of both preretinal and intrinsic traction and thereby increasing chances of resolution of the maculopathy.[6, 9, 22, 30]

However, ILM peeling in highly myopic eyes can be challenging due to its consistency, lack of contrast due to atrophy of underlying retinal pigment epithelium and limited reach of instruments to macular area due to enlarged axial length.ILM peeling may itself be a risk factor for iatrogenic macular hole in highly myopic eyes because of pre-existing retinal thinning.

Based on the above observations, a surgeon has 2 options when approaching a patient with visually significant myopic traction maculopathy.

In eyes with obvious preretinal traction,removal of vitreomacular adhesion or ERMto resolve the major traction mechanism, leaving the ILM intact, may help in settling down the retina.This approach avoids the risk of operative complicationsassociated with ILM peeling.[25]

Alternatively, a comprehensive approach to address all apparent preretinal traction elements including I L M peeling is likely to have the highest single surgery success rate. ILM peeling also ensures complete removal of preretinal tissues such as vitreous, cellular and collagen components that may contribute to current or future tangential traction.[29]

6. Vitrectomy + ILM peeling + Gas tamponade:

Gas tamponademay not always necessary in the surgical treatment of MF, if the macular traction is released sufficiently, and in the absence of unexpected intraoperative events such as paravascular breaks or suspicious iatrogenic macular hole.

In a large retrospective case series of 24 highly myopic eyes with myopic traction maculopathy, Panozzo and Mercanti[30] demonstrated that, vitrectomy with ILM peeling led to a high rate of anatomic resolution (95.8%) and visual improvement, without the use of gas tamponade. However, the recovery process was very slow. (mean, 4.4 months; range, 1–12 months).

Few researchershave reported use of gas tamponade at the end of surgery to flatten the retina, whether ILM was peeled or not.Kumagai and associates[28] have studied various factors responsible for better functional outcome in eyes who underwent vitrectomy with ILM peeling for treatment of myopic foveoschisis. They reported that,with gas tamponade,there was a tendency for eyes to have a better visual outcome, however this was not statistically significantly.

Kim KS et al, in their series[32] reported that the gas-treated group had more rapid resolution of MF (mean, 2.25 months; range, 1–3 months) when compared to the no-gas group. In no-gas group,one eye took 8 months for MF resolution. (mean 4.50 months; range, 2–8 months). In addition, at 1 month after surgery, the mean central foveal thickness (CFT) of the gas- treated group was lower than that of the no-gas group, although the difference was not statistically significant (P .059).

Gas can induce pneumatic displacement of outer-layer detachment leading to quicker repositioning. Nevertheless, the mechanical effect of a gas tamponade may be insufficient forcomplete repositioning of the retinal layers, as gas getsreabsorbed within 1 to 2 months, whereas complete resolution of retinoschisis, in some eyes, may not be achieved until that time.

Hirakata and Hida[33] suggested that intravitreal gas may push the sub-retinal fluid inside the limited space under the foveal detachment and can lead to post surgery macular holeformation.

CONCLUSION:

MF is seen commonly in high myope with posterior staphyloma. SD OCT is an useful tool for diagnosis. If left untreated it may lead to permanent and significant visual loss. Early detection and treatment may help in better anatomical and functional outcome. The lack of consensus for a single pathophysiologic mechanism has led to multiple approaches for treatment for MF. Herein, we reviewed the possible mechanisms responsible for myopic tractional maculopathy. Though vitrectomy is most accepted treatment modality, the surgery can be tailored to the specific pathologic mechanism involved in a given eye for final successful outcome.

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XXIst Vitreo Retina Society-India Annual Meet

The 21st annual conference of VRSI-I was held at the International Convention Center, Srimanta Sankaradeva Kalakshetra , Guwahati on December 6th -8th, 2012. The conference venue chosen was one of the most attractive places of tourist interest in the city. Guwahati, the ancient city of 'Pragjyotishpur', is today the gateway of Northeast India. The conference was organized by Sri Sankaradeva Nethralaya under the aegis of Ophthalmological Society of Assam (OSA).

It was for the first time VRSI meeting held in the North-Eastern part of India and it was a great success.

A large numbers of delegates from all over the country attended the extraordinary academic feast.

Renowned international faculties like Prof Jayakrishna Ambati , Prof Taiji Sakomoto, and Dr Raj Apte attended the meeting this time. Prof JayakrishnaAmbati, known for his pioneering work on age related macular degeneration, delivered "Nataraja Pillai oration' this year. Dr Taraprasad Das delivered the 'Hayreh Award lecture' this year. A unique feature of this year's scientific program was that, the free papers formed the part and parcel of the main conference sessions instead of being presented as 'free paper' sessions. All the sessions were well attended and discussed by the delegates and active participation of the young doctors was encouraging.

The trade exhibition was very attractive with spacious and decorative arena that was participated by good numbers of companies and also new equipments in the field of vitreoretina were demonstrated.

A very special spouse & children program was designed in the beautiful venue which was really enjoyable.

The best part of the VRSI 2012 was the complimentary Pobitora Wild Life Sanctuary (famous for its one-horned rhinoceros) trip for the delegates which must have been a life time experience.

An extraordinary cultural event blended with excellent traditional hospitality must have impressed the delegates to remember VRSI2012 forever.

XXIInd Annual Meet
Vitreo Retina Society of India

12th - 14th December, 2013

Organized by :
The Retina Conglomerate

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LAVASA

SCIENTIFIC HIGHLIGHTS

Nataraja Pillai Oration

Dr. Alan Bird, Emeritus Professor of Medical Ophthalmology, Honorary Consultant Moorfields Eye Hospital, U. K.

Dr. B. Patnaik Oration

Dr. Rajvardhan Azad, Professor & Chief of Ophthalmology, All India Institute of Ophthalmology, New Delhi.

More international speakers are invited and their names will be announced in next communication

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INVITATION

XXIInd Annual Meet
Vitreo Retina Society of India

INVITATION

Dear Colleagues,

The Organising Committee takes great pleasure in inviting you for the 22nd ANNUAL VITREO RETINA SOCIETY OF INDIA MEET, to be held from 12th - 14th Dec. 2013, at the International Convention Centre, Lavasa. This meeting is being organized by the Retina Conglomerate, under the aegis of the Maharashtra Opthalmology Society and the Pune Opthalmology Society.

Over the years the field of opthalmology has grown and specialized research in various areas has been done. Today it has become a necessity to keep updated with the latest trends and changing technologies. The scientific program is being designed with a focus on content and quality deliberations.

The conference is being held at a beautiful location, Lavasa, near the Mulshi lake and dam. Lavasa is India's first and largest new hill city based on the principles of new urbanism & an eco friendly township. It is nested amidst the majesty of the Sahyadri Mountains along 60 km contours of the Warasgaon Lake. **It is a 45 minute drive from Pune** and around **3 hour drive from Mumbai.** A self contained world, Lavasa offers its visitors and residents a spectacular array of business, educational recreational and rejuvenation opportunities so that you can live life in full. Come and experience it for yourself.

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