Editorial

The sweeter side of retina

Dear Friends,

According to the International Diabetes Federation, in 2011 there were 366 million people with Diabetes Mellitus, which is expected to rise to 552 million by 2030, mostly in low- and middle-income countries.[1] Diabetic retinopathy (DR) is the most frequent cause of novel case of blindness in adults between 20 and 74 years of age.[2] DR starts as mild non-proliferative diabetic retinopathy characterized by an increase in vascular permeability and progresses from moderate to severe states of non-proliferative diabetic retinopathy followed by proliferative diabetic retinopathy.[3] DR can be treated effectively if detected early during the disease course. The Diabetic Retinopathy Study (DRS) and the Early Treatment DiabeticRetinopathy Study (ETDRS) have shown that early treatment can reduce the risk of relentless vision loss by 57%.[4] Dilated indirect ophthalmoscopy coupled with biomicroscopy and seven standard field stereoscopic 30® fundus photography have been far and wide accepted methods for early diagnosis.[5] While this method require strained personnel, it is time-consuming, costly, and tedious. One method without these limitations are the need of the hour. Although consensus from various national bodies is for diabetics to undergo dilated fundoscopic examination with stereoscopic examination of the posterior pole using slit-lamp biomicroscopy, studies have shown a low screening rate (ranging between 35 and 54%) for diabetic retinopathy.[5,6] Digital non-mydriatic retinal imaging (NMRI) technique has been developed as an alternative that overcomes some of the above-mentioned barriers where patients will be assessed all the way through remote reading by concerned specialist.[7] Despite being both highly sensitive and specific, proportion of images that could not be graded ranged between 6 and 35% as shown by various studies.[8-12]

Considering the dearth of data of NMRI in Indian population, Gupta *et al*. in this issue published an original study evaluating its application in 500 Indian diabetic patients. The authors have found that nearly one-third of the images were not gradable, sensitivity was around 60% and specificity 70%. Presence of elderly individuals with cataract and dark iris were the possible reasons for inability to grade images in the present study. This limits the use of NMRI as a screening technique in Indian patients. It is my goal to spread awareness on DR and prevent blindness due to it. The AIOS President, Dr. Maskati has launched an ambitious nation-wide drive to screen for DR through our 15,000 strong member body from November 14th to 20th 2014. I laud him for his initiative and request you all to participate whole-heartedly.

Rhegmatogenous retinal detachment is presently managed by vitreoretinal surgery, pneumatic retinopexy, and scleral buckling.[13,14] Vitreoretinal surgery is advocated for those patients with complex retinal detachments such as giant retinal tear or proliferative retinopathy involving the vitreous. Scleral buckling has taken a setback as the procedure depends on indirect ophthalmoscopy.[15] This led to the advent of endoilluminator-assisted sclera buckling (EASB) through which it is possible to locate the number and location of breaks more accurately, and one can undertake cryopexy of the breaks and perform drainage of the subretinal fluid.[16] Gogia *et al*. in this issue has published their experience of EASB in 25 eyes. The authors have found an anatomical success rate of 95.6% and observed a significant improvement in the mean visual acuity, indicating the utility of this technique. Comparable success rate has been reported in earlier studies.[17-19]

Commotio-retinae (CR) or Berlin's edema is a post-traumatic retinal condition that become sapparenteven after mild blunt trauma. There occurs a disruption at the level of outer and inner photoreceptor layers and retinal pigment epithelial layer which is characterized by whitish grey retinal appearance in optical coherence tomography (OCT), observed several hours after blunt trauma.[20] Rare instances of sub-clinical variant of CR have been reported where retina looks normal, therefore posing a diagnostic challenge. Andrew *et al*. in this issue published a case report where infrared protocol of OCT was used and it demonstrated infrared hypo-reflectance.

The previous issue of IJO was the last one to be personalized for all our members. But let me assure you that I am always available personally for any of your queries/suggestions.

Happy reading...

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