79th AIOC 2021: All India Ophthalmological Society

OOPS EVISCERATION SURGERY

Dr Tarjani Vivek Dave, Hyderabad

Dr Tarjani discussed about evisceration surgery during her presentation. She covered the topics of petals/scleral flaps, complications, migration, extrusion, volume augmentation options, cysts, eyelid malpositions and management paradigms.

She mentioned a study conducted by herself and her associates which concluded that placing larger implants in socket surgeries does not increase the risk of implant migration. She discussed another study by her team which concluded, "A 3D printing-assisted patient-specific implant placed in the basin of the inferior orbital fissure allows recentration of the migrated implant over a follow-up of 21 months without complications."

Explaining the management paradigm, she advised to look for presence of surface loss, presence of volume loss, assess the prosthesis and assess the eyelids.

SPECTRUM OF VISUAL FUNCTION DEFICITS IN AMBLYOPIA AND IMPLICATIONS FOR TREATMENT

Dr Fatema F Ghasia, USA

During her presentation, Dr Fatema said that the visual system has a built-in paradox. We must fixate our gaze to inspect minute details of the world, yet if we fixate perfectly, the entire world would fade from view due to adaptation. During attempted fixation, when the highest visual acuity is achieved, our eyes are not completely motionless but instead show miniature involuntary fixational eye movements (FEMs).

She mentioned that amblyopia is a neurodevelopmental disorder secondary to abnormal visual experience during early childhood. Fixation instability has been reported in amblyopic patients.

She stated that fusion maldevelopment nystagmus (FMN) or latent nystagmus (LN) develops when there is disruption of binocularity in early infancy.

Dr Fatema discussed a study that aimed to characterize the fixation instability in amblyopic patients, examine the effects of FEM abnormalities on visual function deficits, and examine the link between FEM abnormalities and treatment outcomes. Their work has shown that timing of amblyopia development plays a role in the visual function deficits in amblyopic patients. The presence of FMN syndrome (FMNS) was associated with greater impairment in binocular and some monocular visual function deficits of the fellow eye.

Discussing about FEMs and patching treatment, she mentioned that the predictors of response to amblyopia treatment include age and severity of amblyopia at the time of diagnosis. It is known that FMNS worsens during monocular viewing.

She concluded by stating that amblyopic patients, both with and without nystagmus, have increased fixational instability. Patients with FMN require longer duration of part time patching treatment. Despite modest improvement in visual acuity, stereopsis is poor in amblyopic patients with FMN that are treated with part time patching.

TELEMEDICINE MEASUREMENT OF PEDIATRIC VISUAL ACUITY

Dr Joseph M Miller, USA

During his presentation, Dr Joseph discussed about the telemedicine distance and near visual acuity tests. He discussed the results from recent studies one of which discussed the home acuity test (HAT) validation results and stated that HAT can be used to measure visual acuity.

He discussed about different apps and said that apps are fine for tech savvy who wish to direct their own healthcare, but are not a solution for physician-directed care. Apps are appropriate for screening, self-directed monitoring and exploration, but not for individuals with lower technical competency, those with lower access to hardware and for clinical decision making.

He discussed about the GoCheck Kids Digital Visual Acuity Test App and mentioned another recent study which showed that GoCheck Kids, as checked by a family member, provided modest correlation of visual acuity compared to the chart screen and a fair correlation of visual acuity compared to HOTV-Amblyopia Treatment Study Protocol, although most were within 1 line.

Discussing about another recent study titled "Validation of a Standardized Home Visual Acuity Test for Teleophthalmology", he mentioned that the study

concluded that "an ETDRS VA test self-administered at home following a standardized protocol was equivalent to a standard technician-administered VA test in clinic in the examined population".

He also discussed about the Moorfields Eye Hospital Home Acuity Test. He concluded that it is possible to measure visual acuity from home for telemedicine care using validated methods, stating that various methods such as apps, electronic displays and printed charts are available.

ORBITAL MASS: PRESENTING SIGN OF UNDERLYING MALIGNANCY – CLINICAL AND PATHOLOGICAL FEATURES AND OUTCOMES

Dr Akshay G Nair, Mumbai

Presenting a study, Dr Akshay G Nair said that in India, systemic malignancies presenting as orbital masses are common, and have a poor prognosis with significantly shorter survival.

He conducted a study with his associates to describe the clinical features and outcomes of patients presenting with orbital metastases as the first sign of underlying malignancy. Between 2014 and 2019, they noted 30 cases of orbital metastases; 20 had a previous diagnosis of a malignancy while 10 had no prior history of cancer.

The most common presenting complaints were proptosis, double vision, vision reduction, swelling, pain and redness. Mean duration from initial orbital symptom to diagnosis was 2.25 months and mean number of metastatic sites at diagnosis was 3.3. Mean survival in patients with a known diagnosis of cancer (20/30) was 12.3 months, while that in patients with no known primary cancer (10/30) was 5.8 months.

While concluding, Dr Akshay said that later presentation is associated with more metastatic sites. Recent onset of painful proptosis/diplopia should raise suspicion. Treatment is palliative.

PEDIATRIC HERPETIC KERATITIS

Dr Kathryn Colby, USA

Herpes simplex is an important corneal disease in children, said Dr Kathryn Colby from the United States. Stromal keratitis is a common manifestation of herpetic keratitis, she said, and can be associated with vision loss from corneal scarring or irregular astigmatism. Oral antivirals can be used with success in these children.

She, however, cautioned that management of amblyopia is essential in children with corneal disease.

BUILDING EYE CARE TEAM RESEARCH SKILLS FOR QUALITY AND SUSTAINABILITY

Dr Suzanne S Gilbert, USA

Dr Suzanne S Gilbert spoke on building eye care team research skills for quality and sustainability. She said that there is a global movement to build research skills among healthcare providers. Building skills and engaging in practical research is beneficial to both the staff and the institution.

OCTA IN THE RETINA AND CHOROID

Dr Kelvin Teo, Singapore

Dr Kelvin Teo gave an exhaustive presentation on optical coherence tomography angiography (OCTA) and stated that in his clinical practice, OCTA had cut down the need for fluorescein angiography for platelet-rich plasma decision. He said that it helps in the assessment of macular ischemia, in the prognosis for anti-VEGF (vascular endothelial growth factor) therapy, and identifying patients at higher risk of visual loss. Dr Kelvin added that OCTA has a role in screening for presence/absence of macular neovascularization (MNV), and is a biomarker for fellow eye progression to exudative MNV.

SHOULD AMPHOTERICIN BE ADDED TO CORNEAL PRESERVATION MEDIA?

Dr Bennie H Jeng, USA

Yes, amphotericin should be added to corneal preservation media, once we confirm safety in clinical trials, said Dr Bennie during his presentation.

He stated that post-EK fungal infections are a real problem. There are various methods to decrease this rate, which include disinfection at the time of procurement, and addition of antifungals into storage media. Addition of antifungals can offer protection and appears to be safe, and needs to be at a higher concentration than initially believed. However, more research is needed.

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