

DR K P ROY MEMORIAL FREE PAPER AWARDS

Date: 17.12.17

Time: 8.30 AM - 10.00 AM

Hall: C

Chairperson: Dr Asim Chakraborty

Co-chairperson: Dr Sumit Choudhury

Convener: Dr Sukanya Mitra

Judges: Dr Chandana Chakraborty, Dr Ashok Nanda, Dr Biraj Goswami, Dr Sangeet Mittal

Moderator: Dr Soumen Mandal

KPR 1

TITLE: Preoperative microbiological profile of conjunctival swab in the seeing eye of one-eyed patients

AUTHOR: Dr. Sudipta Das

CO-AUTHORS: Dr. Kumar Saurabh, Dr. Rupak Roy

ABSTRACT 103 eyes of 103 patients with $<3/60$ vision in the fellow eye were studied retrospectively. Conjunctival swab was examined for gram, KOH, bacterial, fungal culture and antibiotic sensitivity. 71 out of 103 eyes underwent surgery with an average delay of 26.8 days from the first swab. Cataract was the most common indication for surgery. Fellow eyes vision ranged from NPL to $<3/60$. Bacteria grew in 37 eyes out of which most common organism was MSSE in 32 eyes. The most sensitive antibiotic to MSSE was aminoglycoside and the most resistant Cephalosporin. Repeat swab in 21 out of 25 eyes became culture negative with topical antibiotic. 1 eye (1.4%) had post-operative inflammation without infection. Average vision improved to 0.43 from 1.02 (logMAR) ($P < 0.05$) MSSE is the commonest organism in conjunctival swab and it is most sensitive to Aminoglycoside. This can help us treating one-eyed patients more convincingly without the need of conjunctival swab analysis in emergency situations.

KPR 2

TITLE: Inverted ERM Flap technique versus Double membrane peeling for Lamellar Holes with coexistent ERM

AUTHOR: Dr. Kshitiz Kumar

CO-AUTHOR: Dr. Pallavi Raj

ABSTRACT Purpose: To study outcomes of two different techniques of vitrectomy for symptomatic lamellar macular holes (LMH). Methods: Retrospective interventional study. Main outcome measure was foveal contour at six months. Results: Inverted ERM Flap creation with ILM peeling was done in 4 cases of LMH with ERM containing macular pigments

(Group A). Double membrane (ERM+ILM) peeling was done in 4 cases of LMH with ERM having no macular pigments (Group B). At six months post-operative period, mean CFT recovered from $97.5 \pm 18.5 \mu\text{m}$ before surgery to $222.25 \pm 47.6 \mu\text{m}$ in Group A ($p=0.001$) with smooth normal appearing contour. In group B, mean CFT changed from 79.25 ± 20.43 to $154.5 \pm 85.4 \mu\text{m}$ ($p=0.07$) at the final visit with variable foveal contour. BCVA at 6 months improved significantly in eyes undergoing inverted ERM flap group ($p=0.001$) Conclusion: Modified technique of vitrectomy for LMH helps in recovery of smooth foveal profile whereas conventional technique helps in stabilisation of foveal contour.

KPR 3

TITLE: Biodegradable polymer based antibiotic nanoparticles: Novel therapeutic approach for endophthalmitis

AUTHOR: Dr. Sneha Batra

CO- AUTHORS: Dr. Aniket Ginodia, Dr. Ajoy Paul, Dr. Partha Biswas

ABSTRACT Various studies have shown bacterial adherence on the surface of IOL to be a prime etiological factor in endophthalmitis. Our aim was preparation of biodegradable polymers combined with antibiotic (Besifloxacin) in a nanoparticulate form. Methodology: PLGA based nano-antibiotic particles were prepared using emulsification and solvent evaporation procedure. The size, size distribution and charge of polymeric antibiotic nanoparticles were measured by means of dynamic light scattering. Investigation of the efficacy of the synthesized nanoparticles on various bacterial cultures was performed in vitro. Results: On in-vitro testing, average zone of inhibition with polymer coated antibiotic was 30.25 mm; 16.5 mm using bare drug nanoparticle ($p < 0.05$). Successful nano-antibiotic coating of the haptic was also achieved, confirmed by Scanning Electron Microscopy. Conclusion: Biodegradable polymer coated antibiotic nanoparticles can be a novel and efficacious approach for endophthalmitis.

KPR 4

TITLE: Refractive outcomes in pediatric cataract patients

AUTHOR: Dr. Anuradha Chandra

CO-AUTHOR: Dr. Asmita Ray

ABSTRACT: Aim: To show refractive outcomes and accuracy of intraocular lens power selection in pediatric cataract patients. Material and methods: Retrospective analysis of postoperative refractive error in children with age group 1-15 years were included in the study. The post operative refraction was compared with the expected refractive error. Results: In patients above 8 years emmetropia and close to emmetropia was found. In age group 2-8 years +2 to -2 refraction was found. In below 2 years 1.5 to 3 d refractive error is found. Conclusion: Refractive error was less in age group 2 and above. but below 2 years high variability was found.

KPR 5

TITLE: How Sterile are our Eye drops?

AUTHOR: Dr. Aniket Ginodia

CO-AUTHORS: Dr. Sneha Batra, Dr. Partha Biswas, Dr. Ajoy Paul

ABSTRACT Aim: Duration of contamination of eye drops after it has been opened in various clinical settings. Methods: Samples were divided into 3 groups. E/D taken- Proparacaine(P), Tropicamide + Phenylephrine(T+), Moxifloxacin (M), Gatifloxacin (G), Tobramycin(T), CMC(L), Prednisolone acetate (PD). Group A 30 samples (P,T+,M) were taken from OT. Culture swab taken at 0,3,6,9 hr after opening. Gp B 60 samples (P, T+, M,G,T,L) taken from OPD. Culture swab taken at Day 0,3,5,7,10,14 after opening. In all groups, the samples taken from tip of phial, inner surface of cap and e/d inside the bottle for examination. Result-1 sample(P) from Group A contaminated with Micrococcus sp at 9 hr after opening. 2 samples(P),(T+) from Group B contaminated with staph sp. at Day 7. Conclusion- Proparacaine prone to get contaminated even on 1st day at 9 hr, so not to be used for more than 6-7 hr after its opening in OT. In OPD, none of the antibiotic drops showed any contamination even on Day 14, but non-antibiotic drops showed contamination after 7 days.

KPR 6

TITLE: Failed lacrimal surgery -causative factors and outcomes of Revision-Dacryo cystorhinostomy surgery

AUTHOR: Dr. Joyeeta Das

ABSTRACT Objective: Describe causative factors for failed lacrimal surgery and report the results of revision dacryocystorhinostomy Methods: Prospective interventional study 37 consecutive cases of failed lacrimal surgery who underwent revision dacryocystorhinostomy included. Possible reasons for failed primary DCR assessed by surgeon during revision-DCR intraoperatively. Postoperative follow- up at 2nd week, 1st, 3rd and 6 months. Results: Most common pathology noted intraoperatively which are supposed to cause failure of primary surgery are inappropriate bony osteum [27 sites] followed by osteum fibrosis [15 sites]. Successful outcome of revision-DCR after 6 month are 90.01% Conclusions Inappropriate surgical techniques during primary lacrimal surgery leads to failure and the outcome of revision dacryocystorhinostomy addressing proper pathology are highly favourable.

KPR 7

TITLE: Accuracy of Retinal acuity meter in assessing visual acuity of patients with cataract

AUTHOR: Dr Shobhana Phukan

ABSTRACT Aims and objectives- To determine the accuracy of RAM in predicting potential visual acuity in presence of cataract. Material and methods- A total no. of 100 patients with cataract at least in one eye with or without co morbid diseases were included in the

study and preoperative RAM acuity was measured in each eye. Preoperative RAM acuity was compared to post operative best corrected visual acuity obtained 1 week after surgery in the operated eye. Conclusion: RAM is very helpful in assessing post-operative visual acuity-a. Prediction is not possible when preoperative visual acuity is less than 3/60 or the patient is uncooperative. b. Prediction becomes poor with advanced cataract and cataract with co morbid diseases. c. Cataract with co morbid diseases involving macula underestimates post-operative visual acuity. d. Cataract with co morbid diseases not involving macula overestimates post-operative visual acuity.

KPR 8

TITLE: Management of sub retinal hemorrhage involving macula

AUTHOR: Dr. Debarati Mukherjee

CO-AUTHORS: Dr. Aniruddha Maiti, Dr. Sangeeta Roy, Dr. U Pan

ABSTRACT Introduction: Subretinal hemorrhage involving macula leads to considerable vision loss if not treated promptly and aptly. It may occur due to various pathologies like CNVM, IPCV, Trauma, RAM etc. Aim: to study cases of submacular hemorrhage occurring in last 6 months due to CNVM and PCV and review their visual outcomes following management. Study design: retrospective interventional single centre Kolkata based case analysis. Materials and Methods: 6 patients presenting with sudden loss of vision due to subretinal haemorrhage involving macula due to CNVM or IPCV. 4 patients received intravitreal injection of anti-VEGF F with C3F8(100%) with tissue plasminogen activator and 2 received anti-VEGF with SF6(100%). Results: 2 patients having IPCV had good visual improvement from 6/60 to 6/12 respectively. Other 4 patients having HM vision at presentation also improved with treatment of which 2 patients with CNVM needed further anti-VEGF injection. Conclusion: at the end of 6 months all patients had significant improvement with treatment from presenting condition in terms of vision as well as clinical condition with displacement of haemorrhage from central macula.

KPR 9

TITLE: Safety and efficacy of retropupillary iris claw intraocular lens implant in aphakia with inadequate capsular support - our experience.

AUTHOR: Dr. Priyanka Khandelwal

CO-AUTHOR: Dr. Aniruddha Maiti

ABSTRACT Aim: To study safety and efficacy of retropupillary iris claw intraocular lens implant in aphakic patients. Method: It is a retrospective study involving 60 aphakic eyes with inadequate capsular support presented in tertiary eye hospital from June 2015 to June 2017. All eyes underwent 25 G PPV only or with either IOL explanation, nucleus removal with iris claw lens implant from sclera tunnel incision. Post operative outcomes was measured in terms of BCVA, IOL position, IOP, Pigment dispersion, clinical signs of endothelial cell loss and AC depth. Result: The follow up ranges from 6 months to 24 months. Mean pre-

operative BCVA was 1.240 +/- 0.692 logMAR and postoperative BCVA was 0.23 +/- 0.348 logMAR units. Complication was encountered in 1.66 % of patients which includes (1) unclipping of the hepatic in 2 patients (2) increased IOP in 3 patients (3) ERM - grade I noted in 2 patients. Conclusion: Iris claw lens implantation with PPV is safe and effective procedure with no significant complications for the correction of aphakia without capsular support.

KPR 10

TITLE: Effect of age on adult stereo-acuity as measured by distance Randot test- a comparison between stereoacuity in pre-presbyopic and presbyopic age groups

AUTHOR: Dr. Satabdi Nanda

ABSTRACT Introduction: Stereopsis implies the ability to obtain an impression of depth by superimposition of two pictures of the same object taken from different angles. It is measured in seconds of arc. Lower the value, better the stereoscopic vision. Aim: To observe the change in stereoscopic acuity over a age span of 20-80 years in patients with vision better than or equal to 6/12. We aimed at finding normative data for Distant Randot stereoacuity in 3 age groups, 20-40, 40-60, 60-80 yrs and look for age related depression of values. Also, effect of presbyopia on stereopsis was observed. Comparison of stereoacuity in early cataractous and pseudophakic patients was done. Setting: Cross-sectional study at a tertiary care hospital. Methods: The Distant Randot is a Polaroid vectographic book, presenting 2 shapes each of 4 disparities- 400, 200, 100 and 60 secs of arc viewed at 3m through polarizing glasses. The smallest disparity level at which the patient identifies the shapes is recorded as stereoacuity. We administered the test to 120 patients with good vision ($\geq 6/12$), 50 in 20-40yrs, 50 in 40-60 yrs, 20 in 60-80yrs, and tabulated the results. Results: Distance Randot scores from normal subjects have low variability within each age group. In the 20-40 age group, 54% had stereoacuity of 60", 28% had 100" whereas in 40-60 age group, 46% had 60", 24% had 100", and 20% had 200". Above 60yrs, stereoacuity declined to 200" in 60% patients. Conclusion: Age-related deterioration in stereoacuity is reflected not only by a linear correlation between age and threshold but also by a catastrophic factor that produces more marked deterioration after age 60. Both factors are probably cerebral. The Distance Randot Stereotest is a sensitive measurement of binocular sensory status that may be useful in monitoring progression of strabismus and/or recovery following strabismus surgery. Due to lack of any normative data for distance stereopsis in the Indian population, this study can be taken forward with a larger sample.

KPR 11

TITLE: A prospective, randomized, controlled study of efficacy of topical nepafenac in eyes with non central diabetic macular edema patients coming to a tertiary eye hospital

AUTHOR: Dr. Soumava Mandal

ABSTRACT Aim: To demonstrate the efficacy of topical nepafenac (0.1%) in reducing 1. Progression of non-central DME to central DME. 2. Macular thickness in non-central DME measured by OCT. Objective: To find out the symptomatic improvement of participants in

both the groups and comparing both the groups every monthly for 3 months. Design: prospective, randomized, controlled study. Materials and methods: 50 patients with non-central DME has been randomized using random number table into 2 groups. 1 group was under topical nepafenac (0.1%) and another group was taking placebo. Both groups were followed at 1st, 3rd & 6th month and their BCVA and OCT thickness were recorded in each visit. Result: There was no significant association between age and gender and two groups of the patients. there was no significant association between status of DR and two groups of the patients. On the basis of BCVA improvement, there was improved in both the groups after 6 month of follow up but improvement was statistically significant in nepafenac treated group, but not significant in placebo group. On the basis of number of non-central subfield reduction, statistically significant decrease in the number of thickened non-central macular subfield in both treatment and placebo group. But in nepafenac group, reduction is more than placebo group. Conclusion: Our study suggests that nepafenac 0.1% used as a treatment in patients with non-central DME has beneficial effect on BCVA and OCT thickness.

KPR 12

TITLE: Short term changes of intraocular pressure after intravitreal injection of bevacizumab and ranizumab.

AUTHOR: Dr Dinesh Rungta

ABSTRACT: Aim: To investigate the effect of intravitreal anti-VEGF injection on IOP. Method: IOP was measured immediately before, immediately after, 1 day and 1 week after injection of 65 eyes of 42 patients. Results: Mean IOP was 16.66 ± 3.5 mmHg pre-injection, 43.81 ± 9.69 mmHg immediate post-injection, 15.00 ± 4.21 mmHg at 1 day, 15.90 ± 3.63 mmHg at 1 week. Conclusion: There is an immediate increase of IOP after anti-VEGF injection, but IOP normalises quickly at 1 day through 1 week.

KPR 13

TITLE: Comparison of corneal endothelial cell loss in patients with controlled Diabetes mellitus (type 2) and non-diabetics after phacoemulsification & intra ocular lens implantation.

AUTHOR: Dr. Kousik Sarkar

ABSTRACT

The aim of study is to compare the preoperative and postoperative endothelial cell counts in Diabetic and Non-Diabetics in age matched population. This study was conducted on 50 patients of cataract, out of which 25 patients with and 25 without DM (Type 2). Both groups underwent pre-operative investigation and ophthalmological assessment and then phacoemulsification done by same surgeon. After phacoemulsification all cases were followed up on 1st day, 1st week, and 1 month and uncorrected visual acuity (UCVA), best corrected visual acuity (BCVA), corneal thickness, endothelial cell count were recorded. Both groups parameters were compared. It was found that the mean endothelial cell loss in Diabetic was more than non-diabetics suggesting that the corneal endothelium in diabetic patients is under metabolic stress. Poorly dilating pupil & leathery nature of the cataract, are

Other factors responsible for more endothelial cell loss than that in non-diabetics subjects.