

# Scientific Posters

## Scientific Poster 293

### Scleral Imbrication Combined With Pars Plana Vitrectomy for Myopic Schisis

Presenting Author: Takayuki Baba MD

Co-Author(s): Sumiyoshi Tanaka MD PhD, Shuichi Yamamoto MD

**Purpose:** To report the efficacy of scleral imbrication combined with pars plana vitrectomy (PPV) for myopic schisis (MS). **Methods:** Thirteen cases with MS have been treated by scleral imbrication combined with PPV. We retrospectively reviewed BCVA and resolution of MS determined by spectral domain OCT (SD-OCT). **Results:** BCVA improved from 0.57 ± 0.39 to 0.41 ± 0.37 logMAR units ( $P = .011$ ) with a follow-up of 6.7 months. Significant resolution of MS was observed by SD-OCT in 92% of cases. No adverse event, including macular hole formation and chorioretinal atrophy, was observed in the postoperative period. **Conclusion:** Scleral imbrication combined with PPV appears to be effective to treat MS.

## Scientific Poster 294

### Cystoid Macular Edema After Cataract Surgery in Eyes With Previous Vitrectomy for Epiretinal Membrane Removal

Presenting Author: Tanuj Banker MD

Co-Author(s): Michael M Lai MD PhD, James M Osher MD

**Purpose:** To determine the incidence of cystoid macular edema (CME) after cataract extraction / posterior chamber IOL (CE/PC-IOL) in eyes that have previously undergone pars plana vitrectomy (PPV) with epiretinal membrane peel (MP) with and without internal limiting membrane (ILM) peeling. **Methods:** A review of 81 cases of ERM removal and subsequent CE/PC-IOL. All PPVs were done using 23-/25-gauge systems. CME was documented by exam, spectral domain OCT, and fluorescein angiography. **Results:** The mean visual acuity was 20/60 pre-MP, 20/80 pre-CE/PC-IOL, and 20/30 post-CE/PC-IOL ( $P < .01$ ). The mean central macular thickness (CMT) was 396.30  $\mu$  pre-MP, decreasing to 334.1  $\mu$  post-MP ( $P < .01$ ), and to 341.41  $\mu$  post-CE/PC-IOL ( $P < .02$ ). Post-CE/PC-IOL, 21.0% of eyes had CME. The rate of CME with ILM peeling was 31.2%, vs. 7.7% without ( $P < .02$ ). **Conclusion:** CME develops frequently after CE/PC-IOL in eyes with previous MP. Peeling of the ILM may be associated with higher rates of CME.

## Scientific Poster 295

### Cystoid Macular Edema After Cataract Surgery in Eyes With Previous Macular Hole Surgery

Presenting Author: Tanuj Banker MD

Co-Author(s): James M Osher MD, Michael M Lai MD PhD

**Purpose:** To determine the incidence of cystoid macular edema (CME) after cataract extraction / posterior chamber IOL (CE/PC-IOL) in eyes that have undergone macular hole (MH) surgery with 23-/25-gauge pars plana vitrectomy (PPV). **Methods:** A review of eyes ( $N = 75$ ) that underwent MH surgery and subsequent CE/PC-IOL. Exam, spectral domain OCT, and fluorescein angiography documented CME. The primary outcome measure was the incidence of CME post-CE/PC-IOL. **Results:** The mean visual acuity was 20/100 pre-MH surgery, 20/80 prior to CE/PC-IOL, and improving to 20/40 post-CE/PC-IOL ( $P = .005$ ,  $P < .001$ ). Post-CE/PC-IOL, 9.5% of eyes had CME. Neither internal limiting membrane (ILM) peeling nor time between MH repair and CE/PC-IOL were significantly related to CME ( $P = .64$ ,  $P = .75$ ). **Conclusion:** Occurrence of CME was not associated with ILM peeling during MH surgery, or the interval between MH surgery and CE/PC-IOL.

## Scientific Poster 295

### Cystoid Macular Edema After Cataract Surgery in Eyes With Previous Macular Hole Surgery

Presenting Author: Tanuj Banker MD

Co-Author(s): James M Osher MD, Michael M Lai MD PhD

**Purpose:** To determine the incidence of cystoid macular edema (CME) after cataract extraction / posterior chamber IOL (CE/PC-IOL) in eyes that have undergone macular hole (MH) surgery with 23-/25-gauge pars plana vitrectomy (PPV). **Methods:** A review of eyes ( $N = 75$ ) that underwent MH surgery and subsequent CE/PC-IOL. Exam, spectral domain OCT, and fluorescein angiography documented CME. The primary outcome measure was the incidence of CME post-CE/PC-IOL. **Results:** The mean visual acuity was 20/100 pre-MH surgery, 20/80 prior to CE/PC-IOL, and improving to 20/40 post-CE/PC-IOL ( $P = .005$ ,  $P < .001$ ). Post-CE/PC-IOL, 9.5% of eyes had CME. Neither internal limiting membrane (ILM) peeling nor time between MH repair and CE/PC-IOL were significantly related to CME ( $P = .64$ ,  $P = .75$ ). **Conclusion:** Occurrence of CME was not associated with ILM peeling during MH surgery, or the interval between MH surgery and CE/PC-IOL.

## Scientific Poster 297

### SOE Perfusion Pressure During Pars Plana Vitrectomy

Presenting Author: Tommaso Rossi MD

**Purpose:** To calculate mean ocular perfusion pressure (MOPP) during pars plana vitrectomy (PPV) in order to assess if it drops below safe values during surgery. **Methods:** Real-time IOP and noninvasive blood pressure (NBP) were continuously monitored throughout surgery and compared to baseline in 18 consecutive patients undergoing PPV for a variety of reasons. **Results:** Average IOP increased and NBP decreased during surgery, compared to baseline. MOPP decreased an average 37.1% compared to baseline. Sixteen of 18 patients had a significant intraoperative MOPP decrease; 15/18 spent more than 20% and 5/18 more than 50% of the entire surgery below 30 mmHg MOPP. **Conclusion:** MOPP may drop well below safe values during surgery for a lengthy time. This could explain visual field defects after uncomplicated surgery.

## SESSION TWO, MONDAY AND TUESDAY

## Scientific Poster 515

### A Retrospective Analysis of the Correlation Between Central Serous Chorioretinopathy and Obstructive Sleep Apnea

Presenting Author: Christopher Joel Rodriguez MD

Co-Author(s): Darrell E Baskin MD

**Purpose:** To elucidate an association between central serous chorioretinopathy (CSCR) and obstructive sleep apnea (OSA). **Methods:** This is a retrospective study using the Department of Defense's health informatics division database to determine the yearly incidence of CSCR, the prevalence of OSA, and then the prevalence of OSA in CSCR compared with the general population of active-duty/retired Air Force and/or beneficiaries from 2009 to 2013. **Results:** A total of 924 patients were diagnosed with CSCR. Of those, 20.5% also had a diagnosis of OSA at the end of the study period compared with only 7.8% of the total population (1,369,407). **Conclusion:** This higher prevalence of OSA in the CSCR population likely represents an association between these two conditions.

## Scientific Poster 516

### Application of Transpupillary Thermotherapy in the Treatment of Central Serous Chorioretinopathy

Presenting Author: Durgesh Kumar MBBS

Co-Author(s): Pankhuri Johari MBBS\*\*

**Purpose:** To evaluate the role of transpupillary thermotherapy (TTT) in treating leaks of central serous chorioretinopathy (CSCR). **Methods:** Sixty-three eyes with CSCR of three to 18 weeks duration, with fall in visual acuity (VA) of two to five lines on Snellen chart, were investigated with fundus fluorescein angiography and OCT. All single (64%) or multiple leaks (subfoveal/extrafoveal) were treated with titrated TTT power of 110 to 200 mW (10- to 30-mW subthreshold, i.e., power to produce mild blanching) and spots size of 0.6 or 1.0 mm for 90 seconds. **Results:** At one week follow-up, submacular fluid (SMF) was reduced by 75% to 83% with VA gain of two to four lines on Snellen chart in >75% of eyes. Overall success rate was 92.2%. Earliest complete SMF reabsorption was seen on tenth post-TTT day and latest in the eighth week in the chronic case. Both subfoveal/extrafoveal leaks closed successfully. **Conclusion:** TTT is a fast, safe, and effective modality in all forms of CSCR.

## Scientific Poster 516

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Co-Author(s): Pankhuri Johari MBBS\*\*

**Purpose:** To evaluate the role of transpupillary thermotherapy (TTT) in treating leaks of central serous chorioretinopathy (CSCR). **Methods:** Sixty-three eyes with CSCR of three to 18 weeks duration, with fall in visual acuity (VA) of two to five lines on Snellen chart, were investigated with fundus fluorescein angiography and OCT. All single (64%) or multiple leaks (subfoveal/extrafoveal) were treated with titrated TTT power of 110 to 200 mW (10- to 30-mW subthreshold, i.e., power to produce mild blanching) and spots size of 0.6 or 1.0 mm for 90 seconds. **Results:** At one week follow-up, submacular fluid (SMF) was reduced by 75% to 83% with VA gain of two to four lines on Snellen chart in >75% of eyes. Overall success rate was 92.2%. Earliest complete SMF reabsorption was seen on tenth post-TTT day and latest in the eighth week in the chronic case. Both subfoveal/extrafoveal leaks closed successfully. **Conclusion:** TTT is a fast, safe, and effective modality in all forms of CSCR.