Conclusions: Children with ASD may be at increased risk for ophthalmologic disorders. Prospective studies are necessary to further characterize this association. Pediatric ophthalmology referral should be considered in children with ASD.

070 Histopathologic findings after selective ophthalmic arterial injection (soai) of melphalan for retinoblastoma. Ho-Min Chen, Sherine J. Ong, An-Ning Chao, Kuan-Lyin Liou, Shih-Ming Jung, Ling-Yuh Kao

Introduction: To describe histopathologic observations in eyes enucleated after selective ophthalmic arterial injection (SOAI) of melphalan for retinoblastoma (Rb).

Methods: Histopathologic analysis of 14 eyes (13 patients) from May 2008 through January 2015 at Chang Gung Memorial Hospital.

Results: The eyes after SOAI were enucleated due to tumor viability (n = 7, 2 with vitreous hemorrhage), neovascular glaucoma (n = 4), lens drop to vitreous with total hyphema and elevated intra-ocular pressure (n = 1), retinal detachment progressed (n = 1) and persistent retinal detachment with phthisis change (n = 1). Almost all of the eyes showed vitreous seeding (n = 11 eyes) before treatment. After the treatment of SOAI , the histopathological examination revealed complete regression in 4 eyes with one was clinically diagnosed as viable tumor and progression, one with retinal detachment progression and two as neovascular glaucoma. Six eyes showed invasion into the optic nerves, reaching the lamina cribrosa in 5 eyes, and 6 eyes with invasion into the choroid were observed. All of the cases with lamina cribrosa involvement showed tumor progression before enucleation, 4 cases with lamina cribrosa involvement expired later.

Discussion: The cause of enucleation in our cases were related to SOAI complications, recurred vitreous and subretinal seedings or tumor progression. Treating advanced cases ICRB Gr D or E, repetitive SOAI with prolonged treatment course sometimes could increase the risk of metastasis.

Conclusions: Although retinoblastoma can be controlled effectively with SOAI, but for refractory cases after SOAI, earlier decision of enucleation may be needed.

071 Prevalence and natural history of consecutive exotropia in botulinum toxin chemodenervation for esotropia. Crystal S. Cheung, Linda R. Dagi, David G. Hunter, Michael J. Wan, Ankoor S. Shah

Introduction: The purpose of this study is to report the prevalence and natural history of consecutive exotropia following botulinum toxin chemodenervation for esotropia.

Methods: Medical records of patients treated with botulinum toxin for infantile and acquired esotropia were retrospectively reviewed at two tertiary centers. Exclusion criteria included prior or concomitant strabismus surgery or <6 months of follow-up. The primary outcome measure was defined as the prevalence of non-resolving consecutive exotropia at 6 months after treatment. Secondary outcomes measures were persistent consecutive exotropia at 18 months and prevalence of corrective procedures.

Results: Record review revealed 140 patients of whom 123 met inclusion criteria. Median onset of esotropia was 2.8 years (IQR2.8-5.7), and median age of treatment was 4.0 years (IQR2.5-7.5). Nine patients (7.3%) had nonresolving consecutive exotropia at 6 months. Of these 9, 7 had persistent consecutive exotropia at 18 months (77.8%), 1 spontaneously improved at 15 months, and 1 did not have 18-month follow-up. Moreover, 3 of the 7 patients (42.8%) required additional corrective procedures, all performed after 18-month follow-up.

Discussion: The prevalence of nonresolving, consecutive exotropia following botulinum toxin is 7.3%, similar to a prior study. The natural history suggests that at least 77.8% of patients with consecutive exotropia will not spontaneously improve after 6 months.

Conclusions: This study implies that surgical intervention, which has been shown to be successful, should be considered earlier than previously reported for patients who develop consecutive exotropia following botulinum toxin for esotropia.

072 The use of 3-D reconstruction technology in the treatment of severe bilateral ocular and facial trauma from dog bite. Catherine S. Choi, Alison Callahan, Andrew Scott

Introduction: Dog bites affect 4.5 million Americans per year and account for up to 1% of emergency room visits in the United States. In young children, dog bite injuries typically affect the head and neck, but the protective blink reflex makes direct trauma to the globe uncommon. We report a case of a 17-month-old girl who sustained severe facial trauma and bilateral globe injuries from a dog bite. Surgical repair was guided by 3-D technology for orbital reconstruction.

Methods: A 17-month-old girl sustained severe dog bite trauma to her face and presented with a large scleral rupture of the right eye. She also had multiple full-thickness right eyelid lacerations causing transection of the right levator muscle, and complete luxation of the left globe caused by crushing nasal bone injuries displacing fragments of bone into the left orbit.

Results: One week after acute surgical repair, the pediatric otolaryngology team performed a complex reconstruction of the patient's nasal and orbital defects using 3-D reconstructive imaging and printing models.

Discussion: 3-D modeling tools are useful in the preoperative planning of complex craniofacial defects and help to decrease the cost and time of surgery. They can also be instrumental in accurately positioning and placing any reconstructive tissues or implants, as seen in our case.

Conclusions: Globe injuries secondary to dog bite trauma are uncommon. We present a rare case of a child who sustained bilateral globe injuries from a severe dog bite and underwent surgical repair that was guided by 3-D reconstructive technology.

073 Strabismus is correlated with gross motor function in children with cerebral palsy. Heeyoung Choi, Hyeshin Jeon, Jaeho Jung

Introduction: Ophthalmic evaluation is limited and often neglected in patients with cerebral palsy (CP) because of the poor cooperation. This study was to investigate the correlation between clinical features of strabismus and motor dysfunction classified according to the Gross Motor Function Classification System (GMFCS) in patients with CP.

Methods: Sixty-five patients who are diagnosed with CP who had an ophthalmic examination between 2006 and 2014 were included in this retrospective study. The types of CP were classified as diplegia, hemiplegia, or quadriplegia for distribution of motor impairment; spastic, hypotonic, or mixed for abnormal muscle tonicity. The GMFCS was used to grade gross motor dysfunction, which was then classified as mild (grade 1, 2 and 3) or severe (grade 4 and 5). The relationship between strabismus characteristics and the level of GMFCS and type of CP were assessed.

Results: Thirty-eight and 27 patients had mild or severe motor deficit, respectively. Thirty-five patients had strabismus, which was more