Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company’s public news and information website.

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Methods: Retrospective, multicenter cohort study at 3 hospitals of children with RH from AHT with one or more follow-up eye examinations. Primary outcomes were visual acuity, motility, and intraocular findings. Initial eye findings and non-ocular injuries were examined as predictive risk factors.

Results: In total, 247 children were studied. RH severity at presentation was mild/moderate (25%), severe (56%), severe with retinoschisis or retinal folds (9%), and unspecified (10%). RH severity predicted final visual acuity (better-seeing eye), macular scar, macular atrophy, and optic atrophy ($P < 0.001$). Initial visual acuity, optic atrophy, cerebral edema, and hypoxic-ischemic injury also predicted final visual acuity ($P < 0.001$). At latest follow-up (mean, 2.7 years; range, 0.1-16.7 years), ocular findings included strabismus (32%), cortical visual impairment (24%), central visual impairment classified as mild/moderate (9%), severe/near-total (11%), unspecified (2%), optic atrophy (12%), macular scar (7%), nystagmus (5%), macular atrophy (3%). Of 5 children with normal vision who underwent macular optical coherence tomography, 3 had abnormal findings.

Conclusion/Relevance: While visual impairment and strabismus are common in children with RH from AHT, long-term follow-up is often lacking. Permanent changes to the retina can occur without obviously impacting vision. Severity of RH and other presenting factors can provide predictive information about final visual outcomes in AHT. Caregivers can be counseled accordingly, and long-term clinical follow-up should be ensured to monitor for visual problems throughout childhood.

163 Optimal dosing of trimethoprim sulfamethoxazole in outpatient treatment of preseptal orbital cellulitis. Alan B. Richards, Omair Ali, Matthew Williams

Introduction: Many standard references suggest trimethoprim sulfamethoxazole in the dose of 5 mg/kg per day for pre-septal cellulitis. However, authoritative references such as the Johns Hopkins Antibiotic Guide suggest the dosage of 5 mg/kg/dose used every 6 hours, or a total dose of 20 mg/kg/day for severe cellulitis.

Methods: Twelve patients with significant pre-septal orbital cellulitis were treated as an outpatient with trimethoprim sulfonurofa in the dosage of 20/10 mg/kg/day, combined with a beta-lactam antibiotic to ensure coverage of streptococcus (often resistant to trimethoprim sulfonurofa).

Results: Twelve patients were successfully treated with high-dose trimethoprim sulfonurofa at a dosage of 20 mg/kg/day combined with a beta-lactam antibiotic. One patient required hospitalization with IV antibiotics and had resolution of the cellulitis. Two patients developed transient diarrhea which resolved with a reduction of the dosage of trimethoprim sulfonurofa and/or cessation of the beta-lactam antibiotic. Without proper treatment, orbital cellulitis can lead to visual loss, significant morbidity and death. Both MRSA and streptococcus often have devastating consequences. Inadequate dosage of trimethoprim sulfonurofa (5 mg/kg/day) during outpatient treatment of cellulitis with oral antibiotics often leads to poor results. Optimal selection of proper antibiotics and proper dosage is critical to avoiding ocular and systemic morbidity.

Conclusion/Relevance: The use of high-dose trimethoprim sulfonurofa (20 mg/kg/day) combined with a beta-lactam antibiotic is successful in many cases of significant pre-septal orbital cellulitis.

164 Three cases of ocular neuromyotonia associated with proton beam therapy. Cody Richardson, Casey Smith, Thomas Merchant, Raja Khan, Mary E. Hoehn

Introduction: We report 3 cases of pediatric ocular neuromyotonia (ONM) following proton beam therapy (PBT) for craniopharyngioma. This complication has not been reported following PBT.

Methods: Case series of three patients at St. Jude Childrens Research Hospital with ONM following PBT.

Results: Three cases of ONM were identified following PBT for craniopharyngioma. None were treated with other forms of radiation or chemotherapy. All had partial resection or cyst drainage prior to PBT. ONM onset ranged from 5 to 34 months after PBT. The abducens nerve/lateral rectus was affected in 2 cases, and the trochlear nerve/superior oblique was affected in one case. Ages at symptom presentation were 4 years (intermittent head tilt), 10 years (intermittent blurry vision progressing to intermittent diplopia), and 15 years (intermittent diplopia). One patient improved on gabapentin. One patient experienced spontaneous resolution within 1 year, and one patient declined treatment.

Conclusion/Relevance: ONM occurs most commonly following radiation to the brain and skull base, but has not previously been reported following PBT. PBT is commonly employed to treat pediatric brain tumors due to the favorable safety profile, and these cases should not dissuade its use. Membrane stabilizers can be used effectively, but spontaneous resolution may also occur. One child never reported diplopia, only intermittent head tilt. Practitioners need to be aware of the possibility of ONM following PBT. Children may not report diplopia. ONM requires a high index of suspicion to diagnose, especially in children.

165 The strength of rebound: patient care and financial consequences of COVID-19 in U.S. pediatric ophthalmology. Shira L. Robbins, Brent A. Siegel, Lance M. Siegel, Eric A. Packwood, AAPOS Socioeconomic Committee

Introduction: This study evaluates the extent of patient care and revenue losses within Pediatric Ophthalmology (PO) practices as they rebound from the COVID-19 pandemic shutdown.

Methods: Two surveys of active AAPOS members were performed in 2020 at the pandemic peak “lockdown” phase 1 and again in the early recovery phase comparing practice data to the prior year. The authors extrapolated from AAO/AAPOS 2018 Academics to identify specific clinical and financial outcomes.

Results: Median surgical volume in April was 26% of normal, improving to 66% by mid-July, consequently, 76,892 surgeries were not performed. As of July, clinic examinations decreased by 27%, accounting for 461 lost examinations per provider or 484,065 examinations not performed. Medicaid patients were disproportionately affected with 242,033 clinic examinations not performed. Clinical revenue decreased 77% in April and 55% in July. University/hospital and private practice/employed POs whose salary was consistent with the prior year were 69% and 9% respectively in July. As of July, the average doctor lost $35,358 in salary revenue translating into cumulative loss of $233,606,100 for PO physicians. Assuming PO practices continue functioning at current levels, 73% of capacity, through next April, over 1,480,670 examinations and 113,360 surgeries will not have occurred over a 1-year period since the initial survey.

Conclusion/Relevance: While there has been healthy economic rebound for many, this historic event continues to jeopardize access to care for patients and threaten the economic viability of many PO practices. Societal and financial costs of morbidity due to past and future missed/delayed examinations cannot be measured at this time.