Columbia University Medical Center

pediatric eye news

From the Department of Ophthalmology, Division of Pediatric Ophthalmology, Columbia University Medical Center and the Morgan Stanley Children's Hospital of New York

SPRING 2017

Greetings

Dear Colleagues:

Welcome to the spring edition of Pediatric Eye News. This issue is dedicated to blepharitis, a common and chronic condition that affects many of our pediatric patients. We hope the information below is informative and useful in your daily practice. As always, electronic copies of the newsletter and detailed information about our outstanding physicians, services, and facilities can be found on our webpage at http://childrensnyp.org/mschony/ophthalmology.html. Wishing you a happy and enjoyable spring season!

About Blepharitis

Blepharitis, or inflammation of the eyelids, is a descriptive diagnosis that encompasses a range of different clinical conditions, including rosacea, infection, inflammation, autoimmunity, and allergy. Although is it a common problem in general, it is particularly common in children with trisomy 21 or atopy.

Redness at the eyelid margin, often accompanied by a mild flaky exudate at the bottom of the lashes (see photo) is characteristic. Symptoms include itching, tearing and light sensitivity or photophobia. Involvement of the small sebaceous and meibomian glands at the eyelid margins can lead to styes and chalazia. Less commonly, staphylococci at the base of the eyelashes secrete exotoxins that get into the tear film, causing inflammatory reactions in the peripheral cornea and conjunctiva that can be quite painful. Copious drainage, as seen in conjunctivitis, is not a feature, and preauricular lymph nodes are not enlarged.

Although blepharitis is best appreciated at the slit lamp, there are signs that are discernable with a general inspection of the eyelids, using a penlight. The key is having an index of suspicion based on the history. The eyelid margins may appear erythematous and slightly thick-ened, and some crusting and debris may be grossly visualized on the lashes, typically near the base of the lashes.

(continued on page 2)

Division News

Several exciting developments have occurred since the last edition of this newsletter. Dr. Brian Marr, a renowned expert in ocular oncology including pediatric retinoblastoma, will be joining our faculty in the Department of Ophthalmology later this year. He comes to us from Sloan Kettering, and will see patients at our east side office at 880 3rd Ave (and east 53rd), as well as at the Harkness Eye Institute on west 165th St. Also, Dr. Lora Glass, an ophthalmic plastic and reconstructive surgeon, joined our faculty this past fall. She sees children with a wide range of eyelid issues including ptosis, eyelid trauma, and congenital anomalies.

We are currently in the process of developing a program in ophthalmic genetics to help support our ultimate goal of personalized medicine. This initiative, called Jonas Children's Vision Care, is funded by a generous donation from the Jonas Family Fund. It will provide innovative and state of the art diagnostic testing and imaging, genetic counseling, secondary and tertiary eye care, as well as teaching and research, all to benefit children. We will continue to provide updates to this exciting initiative over the next several months.

EyeQ Test:

1. All of the following are true regarding intermittent exotropia in children, except:
   a. It is more obvious when the patent is tired
   b. Usually no underlying cause can be identified
   c. MRI is not indicated
   d. Amblyopia is a common complication
2. Which statement is false regarding chalazia?
   a. A large, chronic chalazion may lead to astigmatism by exerting pressure on the eyeball
   b. Chalazia are sometimes contagious
   c. Chalazia tend to recur and maintenance therapy is recommended
   d. All of the above are false
3. True or False: Blepharitis is usually bilateral.
4. Which statement is true regarding amblyopia?
   a. Amblyopia is always a unilateral condition
   b. Amblyopia can be surgically treated
   c. Atropine drops can be used for treatment
   d. Patching of the weak eye is the mainstay of treatment
5. Which of the following is a red flag in a patient with possible blepharitis?
   a. Unilaterality
   b. Severe photophobia
   c. Large amounts of exudate in the eyes
   d. All of the above

Answers: 1. d, 2. b, 3. True, 4. c, 5. d

pediatric eye news

A Publication of the Department of Ophthalmology, Division of Pediatric Ophthalmology, Columbia University Medical Center and the Morgan Stanley Children's Hospital of New York

Pediatric Ophthalmologists: Steven Brooks, M.D. *(Division Chief)* Lauren Yeager, M.D.

Practice Locations:
Morgan Stanley Children's Hospital 3959 Broadway, New York, NY *(5th floor)*
15 west 65th St., New York, NY *(Lighthouse-Guild Building)*

For Appointments Call: 212-305-9535

Literature Review

Several studies have shown successful treatment of retinopathy of prematurity (ROP) using intravitreal bevacizumab (Avastin), an anti-VEGF agent. We know, however, that bevacizumab can escape the eye and circulate systemically, and that VEGF is necessary for normal development in many tissues, including the brain. The December 2016 issue of the Journal of the American Association of Pediatric Ophthalmology and Strabismus reported a study by Khodabande et al showing that bevacizumab can effectively treats ROP at a much lower dose (0.25mg) than what is conventionally used (0.625mg). While this case series is limited by the small sample size and lack of controls, it supports the ophthalmic effectiveness of lower dosing, and the likely reduction of systemic side effects.

Blepharitis *(continued from page 1)*

Occasionally eyelashes are missing. If the surface of the eye is involved then the conjunctiva may be injected, and significant photophobia may be present. Blepharitis is most often bilateral, and does not usually affect vision or damage the eye, so a significant problem with vision, or unilaterality, should be a red flag for something more serious, like a herpes infection. Ultimately the diagnosis of blepharitis is a descriptive one, based on the clinical examination.

Warm compresses and eyelid hygiene (cleaning the lids with warm water and dilute baby shampoo) are the mainstays of blepharitis treatment, including styes and chalazia. This should be done at least twice daily in symptomatic cases and once a day for maintenance therapy. Some evidence suggests that omega-3 fatty acids improve the quality and consistency of the oil produced by the meibomian glands, thereby reducing the tendency for chalazia to form. Topical antibiotics such as erythromycin ointment or azithromycin drops can help in cases where there is significant redness and exudate, but since the condition tends to be chronic, the use of antibiotics must be carefully titrated. The use of oral antibiotics (e.g. tetracyclines) or topical steroids are typically not necessary, and should only be prescribed in consultation with a pediatric ophthalmologist. Referral to a pediatric ophthalmologist is recommended for any child with unilateral blepharitis, pain or significant photophobia, vision loss, as well as chalazia lasting more than a few weeks.

Literature Review *(continued)*