The Use of Punctal Plugs in Children
A Mataftsi, R G Subbu, S Jones, K KNischal

The study aims to evaluate the safety and efficacy of punctal plugs in children with dry eye syndrome. This is a retrospective case series of patients who had an insertion of silicone punctal plugs for dry eye syndrome. Data collected included presenting symptoms, signs, systemic disorders if present, type of anaesthesia and complications by the time of last follow up.

Results: Twenty-five patients (median age at insertion 7 years, range 1.5±13.8 years) were identified. Median follow-up was 18 months. The commonest symptoms were photophobia, soreness and blepharospasm, and the commonest sign was punctate epithelial erosions. Concurrent systemic disease was present in 18/25 patients. Repeated procedures were carried out in eight of 25 patients. Twenty-four of 35 insertions were performed under general anaesthesia. A substantial improvement in ocular surface disease was noted in all cases: frequency of lubricant use was reduced in eight of 25 and visual acuity improved in 15/25 patients. Spontaneous extrusion was the commonest complication and occurred within 6 months in 19% of cases. Conclusion: Dry eye syndrome in children is often accompanied by systemic disease, so in a child with persistent symptoms this should be explored. Punctal plugs offer a safe and effective form of treatment especially as compliance of frequent lubrication is limited in children.

Multiple Radial Midpupil Lid Distances: A Simple Method for Lid Contour Analysis
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Ophthalmology (Article in Press)

This study describes a new computerized method for the analysis of lid contour based on the measurement of multiple radial mid pupil lid distances.

Design: Evaluation of diagnostic technology.

The subjects included monocular palpebral fissure images of 35 patients with Graves’ upper eyelid retraction and of 30 normal subjects. A custom software was used to measure the conventional midpupil upper lid distance (MPLD) and 12 oblique MPLDs on each 15° across the temporal (105°, 120°, 135°, 150°, 165°, and 180°) and nasal (75°, 60°, 45°, 30°, 15°, and 0°) sectors of the lid fissure. The main outcome measure included mean, standard deviation, 5th and 95th percentiles of the oblique MPLDs obtained for patients and controls. Temporal/nasal MPLD ratios of the same angles with respect to the midline.

Results showed that the MPLDs increased from the vertical midline in both nasal and temporal sectors of the fissure. In the control group the differences between the mean central MPLD (90°) and those up to 30° in the nasal (75° and 60°) and temporal sectors (105° and 120°) were not significant. For greater eccentricities, all temporal and nasal mean MPLDs increased significantly. When the MPLDs of the same angles were compared between groups, the mean values of the Graves’ patients differed from control at all angles (F 4192; P <0.0001). The greatest temporal/nasal asymmetry occurred 60° from the vertical midline. So the authors conclude that the measurement of radial MPLD is a simple and effective way to characterize lid contour abnormalities. In patients with Graves’ upper eyelid retraction, the method demonstrated that the maximum amplitude of the lateral lid flare sign occurred at 60° from the vertical midline.

Intra-arterial chemotherapy for retinoblastoma in eyes with vitreous and/or subretinal seeding: 2-year results
David H Abramson, Brian P Marr, Ira J Dunkel, Scott Brodie, Emily C Zabor, Sarah J Driscoll, Y Pierre Gobin

This article reviews the effectiveness of intra-arterial chemotherapy for advanced intra-ocular retinoblastoma with vitreous and/or subretinal seeds in naïve (untreated) and previously treated eyes.

This was a retrospective study, approved by the institutional review board, of 76 eyes of 67 patients with retinoblastoma with subretinal and/or vitreous seeding treated with intra-arterial chemotherapy at Memorial Sloan-Kettering Cancer Center between May 2006 and August 2010.

Despite advanced intraocular disease with seeding, the majority (56/76) of eyes were saved; 20/76 eyes were enucleated. Among treatment-naive eyes, the 2-year probability of ocular salvage was 83% (95% CI 72% to 97%) for eyes with subretinal seeding only, 64% (95% CI 24% to 87%) for eyes with vitreous seeding only, and 80% (95% CI 40% to 95%) for eyes with both. Among eyes that received previous treatment and had progressed, the 2-year probability of ocular salvage was 50% (95% CI 15% to 78%) for eyes with only subretinal seeding, 76% (95% CI 48% to 98%) for eyes with only vitreous seeding, and 63% (95% CI 34% to 84%) for eyes with both.
91%) for eyes with vitreous seeding only, and 54% (95% CI 20% to 79%) for eyes with both. Nine of 29 naive eyes (31%) were cured with intra-arterial (super-selective ophthalmic artery infusion of chemotherapy) chemotherapy alone.

The authors concluded that unlike radiation or systemic chemotherapy, intra-arterial chemotherapy can usually prevent the need for enucleation in naive eyes with advanced intraocular retinoblastoma with seeding, especially if the seeding is subretinal. Treatment appears to be less effective in previously treated eyes when subretinal seeding is present (50% at 2 years), but may be more effective in eyes that failed to respond to previous systemic chemotherapy and have only vitreous seeding.

Spot Diagnosis

Answer to the previous issue spot diagnosis was “Tamoxifen Retinopathy”

Correct answers were sent by Santhi KV, Padma Prabhu, Mallika Harikrishnan, Mihir Shah, Suma Unnikrishnan. You will be receiving the prize soon.