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Advantages of Dacrio TC versus Traditional Dacriocistography

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Purpose This study examines the advantages of the dacrio-TC versus the traditional dacriocistography

Methods 2 groups of 50 patients (57 women and 43 men, mean age 50 years) with epiphora for low lacrimal tract obstruction were recruited and successively each group were submitted to dacrio-TC and dacriocistography

Results the study was showed that the dacrioTC versus dacriocistography is a good diagnostic tool to dynamic evaluation of lacrimal tracts.

Conclusion Advantages: - Facility execution - Greater compliance - Quality better radiological images - processing and analysis of the images and relationships with the surrounding bony structures. - Possibility of control in the follow-up of the DCR.

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Traumatic wound dehiscence after penetrating keratoplasty

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Purpose To present our experience of traumatic wound dehiscence after penetrating keratoplasty

Methods Cases were identified and data recorded by retrospective case note review. The cases were analysed in terms of age, original indication for the corneal graft, nature of trauma, time since the graft, presence of sutures, nature of ocular injury sustained, surgery required and final visual acuity compared with best visual acuity before the trauma.

Results Fourteen patients were identified who had experienced traumatic wound dehiscence after penetrating keratoplasty. There was a bimodal distribution of ages of patients; young and elderly. The young group was predominantly male. The aetiology followed a corresponding bimodal distribution, assault being more common in the young and falls in the elderly patients. Final visual outcomes varied widely.

Conclusion Penetrating keratoplasty wounds are vulnerable to injury even years after the graft operation, whether or not sutures are still present. Patients should be advised of this, and try to avoid situations where their eye may be at risk of injury. Counseling is needed prior to penetrating keratoplasty to explain the lifetime risk. Visual outcomes after surgical repair vary, depending primarily on the extent of other ocular injury occurring alongside corneal wound dehiscence.

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Within and Between Session Repeatability of Topographic Data Using Medmont E-300 Corneal Topographer

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Purpose The aim of the present study was to analyze within- and between-session repeatability of topographic corneal parameters.

Methods Sixty eyes from thirty young adults were evaluated. Nine locations including corneal center, 4 locations at 1,5 mm and 4 locations at 3,5 mm beyond the corneal center were examined on three separate sessions, taken three repeated measurements each time.

Results Mean values and coefficients of variability within and between sessions are reported for central and peripheral axial curvature and elevation topography as well as other topographical indices including eccentricity, BFS, I-S, SAI and SRI. At center, each individual measurement of axial curvature within same session was not different from the mean value (mean diff.<0.03D; p>0.05; r2>0.99). The same occurred between sessions (mean diff.<0.025D; p>0.05; r2>0.98). Within-session differences at periphery were smaller than 0.05D (range 0.01 to 0.04D) and between different sessions (range 0.02 to 0.09D). Only differences for the most peripheral superior location exceeded 0.1D. Elevation data, measured in microns followed a similar behaviour: Regarding other topographic parameters, differences among different sessions were statistically significant for SRI (mean diff.=0.032; r2<0.50) and SAI (mean diff.=0.078; r2<0.65). Eccentricity in the steep meridian displayed higher variability than in the flat one.

Conclusion Present results are relevant to estimate the limits of normality of these values on normal corneas, as well as their degree of intra- and inter-session variability not only at corneal center but over the whole cornea, particularly in longitudinal studies.

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Validity of Nelson's Classification in the long term follow-up of ocular burns

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Purpose To compare Nelson's classification to direct immunofluorescence, and flow cytometry on specimens obtained by impression cytology, during a 2 years follow-up of severe ocular burns.

Methods During 2 years, we used impression cytology in the follow up of 35 patients with Grade II to VI ocular burns treated with AMT. Impressions cytology samples were obtained with Supor® filters (Gelman / Ann Harbor) before treatment on patient arrival, and during the follow up (Day 5, 10, 30, 2 months, 6 months, 1 year, 2 years). Samples are stained with PAS (Periodic Acid Schiff), Alcian blue (for Nelson's Classification) and studied in direct immunofluorescence as well as flow cytometry.

Results CMH class II (HLA-DR) (that constitutes a major eye surface inflammation marker) antigenic expression study gives the prognosis of severe ocular burns. There is an accurate correlation between Nelson's classification and immunostaining. Both Nelson and immunostaining reveal a persisting level of inflammation, even though slit lamp examination shows non inflammatory ocular surface. According to Nelson's classification patients with a Grade III at Day 30 have a poor prognosis.

Conclusion Severe ocular burns prognosis has been changed thanks to AMT. Nelson's Classification gives good results in the follow-up of ocular burns. Its results correlate well with immunostaining and flow cytometry data obtained from impression cytology specimens.