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### **Keratoconus: Prognosis Factors**

Authors: Sant'Anna, N. V.; Molina, R.E.; Paves, L.; Lipener, C. Purpose: To evaluate younger patients with keratoconus and try to detect factors that could be related to its prognosis and evolution. Methods: Prospective study of 15 patients (27 eyes), younger than 15 years old referred to contact lenses section of UNIFESP, with diagnosis of keratoconus from January 1994 to December 1994. We researched personal and family history for evidence of systemic and ocular allergy (allergic conjunctivitis, rhinitis, asthma and/or eczema). The diagnostic criteria of keratoconus was based on the clinical findings of slit lamp examination, keratometric measures and computerized corneal topography. All patients underwent rigid contact lenses fitting and after this they were divided in three groups: 1- corrected with eyeglasses; 2- contact lenses wears; 3- underwent to penetrating keratoplasty. Results: 8 patients were female (53.4%) and 7 were male (46.6%). In relation to the personal history of allergy, 8 (53.4%) had some form of atopy (rhinitis, asthma and/or allergic conjunctivitis) and regarding the family history, 3 reported some form of atopy among relatives. The group 1 had 2 eyes (7.41%), the group 2 had 14 eyes (51.85%) and the group 3 had 11 eyes (40.74%). The visual acuity varied from 20/200 to 20/60 and all patients of the group 3 had visual acuity worse than 20/60. In relation to the computerized topography, 26 topographies were made. The cone apex was displaced inferiorly in 11 eyes (42.31%), superiorly in 12 (46.15%) and central in 3 (11.54%). The mean keratometry was 46.50 X 61.00. Concerning the presence of atopy, 15 eyes (55.5%) had conjunctivitis and/or rhinitis associated with keratoconus. 8 eyes (53.4%) of them underwent to corneal keratoplasty and 7 (46.6%) fitted with contact lenses. The mean keratometry in these patients was 56.38 X 61.00. Conclusion: Woodward, Lass and Dana considered corneal curvature as an important risk factor to keratoplasty. In this study, keratoconus patients with superior apex and keratometry steeper than 61D underwent keratoplasty (40.74%). There is no relation between inferior apex cone and more tendency to keratoplasty. The more central apex, the easier the contact lenses fitting.