

RETROSPECTIVE STUDY ON 48 PATIENTS ADAPTED ORTHOKERATOLOGY AT AN OPHTHALMOLOGY CENTER

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Introduction: Orthokeratology is a technique that temporarily reduces myopia by wearing night vision gas-permeable rigid lenses, which reshape the corneal epithelium in a predictable, temporary and reversible manner. The corneal reshaping is done by the special geometry of these lenses made to measure according to the corneal topographic data of the patient. The lenses are removed on awakening, allowing the patient to see there all day without any optical aid. The main objective of this study is to establish this correction technique and to demonstrate its tolerance and safety in Algeria.

Patients & Methods: A retrospective statistical study was conducted over a period of seven years between January 2010 and May 2017 on a range of 48 patients (96 eyes) fitted with orthokeratology lenses. Adaptations were followed by J1, J7 and J30 controls by AV measurement and differential corneal topography. The criteria for evaluating the effectiveness of orthokeratology adaptation were AVSC, refraction and eccentricity. The criteria for good tolerance of adaptation were the degree of

patient satisfaction and the safety of the orthokeratology lens (complications).

Result: The mean visual acuity without correction at the last post-orthokeratology check in our series was -0.0802 ± 0.180 LogMAR. We found functional satisfaction in 65% of patients. We had 19 minimal ocular complications (KPS, halos, double vision) that were reversible after local treatment or by changing the lens.

Conclusion: The adaptation of orthokeratology lenses is a medical gesture that must respect a well codified protocol in order to avoid complications and increase the success rate of the first lens. The preliminary results of the study appear to be very satisfactory with a better understanding of the mode of action of this new corneal remodeling procedure, thus providing freedom and quality of vision for our patients without glasses or lenses during the day.

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