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## Plasma rich in growth factors in drops for treatment of dry eye in patients with graft versus host disease

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**Purpose:** Evaluate the therapeutic effect of plasma rich in growth factors (PRGF) in the form of eye drops, for the treatment of dry eye in patients with graft-versus-host disease (GVHD) in chronic phase, developed post-transplant bone marrow.

Methods: Four patients with GVHD in chronic phase after transplantation of Allogeneic Hematopoietic Stem Cell (Allo-HSC) have been diagnosed with dry eye syndrome refractory to conventional treatment (including autologous serum). They were evaluated in this description of clinical cases. The PRGF was extracted from the serum of each patient studied, and also quantitative records symptoms (Visual Analogue Scale: frequency and severity of symptoms) were obtained. Psychometric Survey of Dry Eye (OSDI), visual acuity test, tear breakup time (tBUT) and Schirmer's test without anesthesia; these measures were taken before initiation of treatment with PRGF. In the next week, month, and then in successive visits, even some patients have been followed for more than a year.

Results: Four patients were selected, three of whom were men and one woman. The age was understood between 47 and 61 years (mean age, 54.5±5.73). After four weeks of treatment the OSDI test (Ocular Surface Disease Index) decreased significantly: 59% (initial OSDI: 45.5±6.24; final OSDI: 19±2.45); the decrease in Visual Analog Scale (VAS) was not significant in frequency, however for VAS-Severity tends to a significant statistical difference. For visual acuity of the most affected eye, a mean improvement of 33.3% was found, results also found improvement in tBUT and Schirmer's test. No significant adverse effects as a result of PRGF treatment were found during the monitoring period.

**Conclusions:** In patients with graft-versus-host disease chronic phase, who have developed severe dry eye syndrome, and have had previous conventional treatments without improvement, including the use of autologous serum; now have the option of treatment with eye drops PRGF. This therapy shows improvement of symptoms, findings on physical examination as tBUT and very importantly achieves improvement in visual acuity test.

## **Biography**

Ronald Avila Sanchez completed his training as a physician at the age of 26 years (National University of Colombia). He has completed postgraduate studies in: R & D of drugs, Health Management, have an MBA. Currently he is completing his training as an ophthalmologist at the Hospital Universitario Central de Asturias, and is a doctoral candidate to the research of Ophthalmology and Vision Sciences (Universidad of Oviedo, Eye Research Foundation, ophthalmological Institute Fernandez-Vega). Results of his research have been presented at national and international congresses ophthalmology. The research results are pending publication (5 articles of international journals).

**Notes:**