( ) R1 ( ) R2 ( ) R3 (X) PG0 ( ) PG1 ( ) Estagiário ( ) Tecnólogo ( ) PIBIC Last Name - Oliveira First Name - Maria Vitoria Middle - Fernandes

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**Tear film analysis and its relation with palpebral fissure height and exophthalmos in Graves' ophthalmopathy**

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**Purpose:** To evaluate tear film quality by rose bengal staining and its stability by break up time, relating with palpebral fissure height and exophthalmos in patients with Graves' ophthalmopathy. **Methods:** We studied 54 eyes of 27 patients with Graves' ophthalmopathy, either in inflammatory activity or in chronic phase. The evaluation consisted of tear film qualitative analysis by rose bengal staining through van Bijsterveld grading scale, tear film stability analysis by break up time, measurement of palpebral fissure height and exophthalmometry. **Results:** Among 27 studied patients, 77,8% were females and 22,2% males. Mean age was 44,26 years (SD 12,67). Mean disease time was 5,85 years (SD 4,47) and mean ophthalmopathy time was 5,81 years (SD 5,37). Among 54 studied eyes, 37% had positive test by van Bijsterveld's grading scale, 33,3% tear film break up time lower than 5 seconds, 57,4% palpebral fissure height greater than 11 mm and 55,6% exophthalmometry greater than 19 mm. When relating tear film break up time lower than 5 seconds with palpebral fissure height greater than 11 mm we found an odds ratio of 11,2 (p=0,0008). Remaining relationships did not show statistical significance.

**Conclusions:** Dry eye diagnosed by rose bengal staining and tear film break up time occurs frequently in Graves' ophthalmopathy. Palpebral fissure height correlates with tear film break up time in Graves' ophthalmopathy. Its increase may lead to tear film instability