PO5 - COMPARISON OF ND:YAG LASER RATES FOLLOWING IMPLANTATION OF TWO DIFFRACTIVE TRIFOCAL INTRAOCULAR LENSES

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Purpose: To compare Nd:YAG laser rates following bilateral implantation of two different diffractive trifocal intraocular lenses (IOLs)

Methods: This retrospective case series study included patients that had underwent uncomplicated cataract surgery with bilateral implant of a diffractive trifocal IOL performed during the same period before February 2014, and at least 1 year of follow-up; Group 1 implanted with the Finevision Micro F (PhysIOL S.A.) and Group 2 with the AT Lisa tri 839MP (Carl Zeiss Meditec AG). Clinical data were obtained from the central computerized medical file system from Clinica Baviera Spain.. Chi square and Odd ratios statistical method were used to compare the YAG capulotomy rates of the two groups.

Results: 3076 IOLs were implanted in group 1 and 1432 in group 2. No statistical differences in age (58.03±7.92 and 58.02±7.91 years of age respectively) nor axial length (22.95±1.18 mm and 23.02±1.45 mm) nor IOL power (22.93±3.70 D and 22.58±4.20 D) were seen. YAG laser capsulotomy rates were always significantly higher in group 2 (14,7%) than in group 1 (7,7%) ($P<0.001$). In eyes with more than 3 years of follow-up the incidence was 10,0% in group 1 and 27,7% in group 2, between 2 and 3 years 8,8% and 18,3% and between 1 and 2 years 4,3% and 9,3% respectively.

Conclusions: Eyes implanted withtheFinevision Micro F IOL required significantly fewer Nd:YAG laser capsulotomies than those with the AT Lisa tri 839MP during the first years after their implantation. The material and design of the IOLs platforms could account for these differences. Longer postoperative follow-up studies are needed to confirm these data.