IMPACT OF COMPLIANCE ON INTRA-OCULAR PRESSURE (IOP) CONTROL IN GLAUCOMA PATIENTS

Lafuma A1, Laurendeau C1, Jeanbat V1, Berdeaux G2
1Cemka-Eval, Bourg-la-Reine, France, 2Alcon France, Rueil-Malmaison, France

OBJECTIVES: To identify and characterize glaucoma patient compliance profiles and to evaluate the impact on treatment efficacy. METHODS: A computerized device (Travalert®) that collects daily instillation time and number of drops was given to a cohort of patients for three months. A patient was declared compliant when at least 2 drops per day were instilled, one in each eye. Two compliance rates were calculated per week: during the weekend and the remaining ‘working’ days. Principal component analysis (PCA) was performed followed by an ascendant hierarchical classification (AHC) to identify groups of compliant patients. Their characteristics were compared using chi-square or ANOVA. RESULTS: A total of 113 patients were included (mean age 66.5 years, 51.8% male), and 86.7% had primary open angle glaucoma. Mean IOP was 24.2 mmHg before using Travalert®. 57.5% were treated with Duotray® and 42.5% with Travatan®. PCA identified two axes (compliance intensity and week effect), explaining 63.0% of the variance. AHC identified 3 compliance groups: good (56.6% of the patients, compliance around 80%), mild (21.2% of the patients, compliance around 50%) and poor (22.1% of the patients, compliance around 20%). No predictive variables (demographic or medical) of poor compliance were identified. At the last visit, IOP was 16.1 mmHg on average and statistically significantly higher in the poor compliance group (17.7 mmHg; P = 0.02). CONCLUSIONS: Compliance, measured objectively with a medical device, remains a major issue in glaucoma treatment since about half the patients had compliance lower than 80%. This impacted IOP control, a surrogate endpoint of glaucoma progression. None of the medical and demographics variables were associated with poor compliance suggesting that forthcoming compliance research should identify new targets (e.g. behavior) to identify patients benefiting from a compliance training program.

EFFECTIVENESS OF MOXIFLOXACIN IN THE TREATMENT OF BACTERIAL CONJUNCTIVITIS IN ADULTS

Lafuma A1, Koshnoo B1, Laurendeau C1, Berdeaux G2
1Cemka-Eval, Bourg-la-Reine, France, 2Alcon France, Rueil-Malmaison, France

OBJECTIVES: To estimate the effectiveness of moxifloxacin in the treatment of bacterial conjunctivitis in adults using data from the available randomized clinical trials. METHODS: Four randomized clinical trials were identified. Three compared moxifloxacin against placebo and one against ofloxacin. Effectiveness parameters included early (day 3 to 5) and late (day 7 to 10) clinical efficacy, late bacteriological efficacy, and drop-out due to lack of efficacy. Fixed (Mantel-Haenszel) and random (Der Simonian and Laird) effects models for risk ratios and risk differences associated with treatment effects were estimated and tests of homogeneity of effects across studies were done. All analyses were conducted on the intention to treat population. RESULTS: A total of 609 moxifloxacin-treated patients and 606 placebo-treated patients were included in the meta-analysis. Drop-out rates due to lack of efficacy were consistently higher for patients receiving placebo. However, there was significant heterogeneity in the estimates of drop-out rates for moxifloxacin and placebo groups across studies (p = 0.04). The probability of both an early and a late clinical remission was higher with moxifloxacin (RR, 1.17; P = 0.001; RR, 1.13; P = 0.05, respectively). The late bacteriological remission rate was about 25% higher (RR, 1.26, P = 0.001) for patients treated with moxifloxacin. Eleven patients had to be treated with moxifloxacin to gain one additional clinical remission and 6 to gain one more bacteriological remission. In comparison to ofloxacin, the probability of drop-out due to lack of efficacy for the bacteriologically documented population was 2.63-fold lower (P = 0.03) with moxifloxacin; one extra failure could be avoided for every 19 patients treated. CONCLUSIONS: This meta-analysis suggests higher clinical and bacteriological efficacy of Moxifloxacin compared with placebo. The estimates reported here should be interpreted with caution, given the small number of clinical trials with published results. The lower proportion of drop-outs for patients treated with moxifloxacin compared with ofloxacin suggests a lower use of rescue treatments for patients receiving moxifloxacin.