COMPARISON OF EYE DROP INSTALLATION TECHNIQUE WITH AND WITHOUT A DELIVERY DEVICE IN INEXPERIENCED PATIENTS

Natalia Maes 1,2, Beatriz Gomes 2,3, Marcony Santhiago 2,3,4, Rebeca Azevedo 2, Thiago Valadao 2, Nathalia Garcia 2,5

1Glaucoma Fellow, 2Ophthalmology, Bonsucesso Federal Hospital, 3Ophthalmology, Federal University of Rio de Janeiro, Rio de Janeiro, 4Ophthalmology, University of Sao Paulo, Sao Paulo, 5Retina Fellow, Eye Hospital of Parana, Curitiba, Brazil

PURPOSE
To compare the instillation of eye drops with and without Xal-Ease® delivery device in inexperienced patients based on patient observation and answers to a questionnaire.

METHODS
This prospective study included 23 consecutive patients considered inexperienced in instilling eye drops. After a short explanation about the methods, drop instillation technique was evaluated with and without the device. Subjects also completed a survey regarding drop administration and satisfaction.

RESULTS
The overall rate of successful instillation (43%) was the same for both techniques (with or without the device). Without the device, the bottle tip touched the eye or periorcular tissues in 8 eyes (35%) compared with 0 (0%) with the Xal-Ease® (p<0.01). The number of eye drops dispensed was significantly higher with Xal-Ease® (1.4 ±0.5 without the device versus 2.0± 1.1 with Xal-Ease®; p= 0.03). Using Xal-Ease® device, 13 (57%) patients needed to make more than one attempt to succeed, against 6 (26%) patients without the device (p=0.04). Overall, 9 (39%) preferred traditional instillation, whether 14 (61%) preferred to use the device.

CONCLUSION
Xal-Ease® successfully decreases mechanical contact of the tip of the bottle. However, Xal-Ease® failed to help inexperienced subjects dispense fewer drops, or improve accuracy, suggesting that more training might be needed to achieve a good eye-drop administration technique with the device.

REFERENCES