Letters to the Editor

Sensimed Triggerfish® as a new system for continuous recording of 24-hour intraocular pressure in glaucoma patients

Dear Sir,

Recent technological developments have provided a tool for continuous intraocular pressure (IOP) monitoring for a period of up to 24 h in patients with open angle glaucoma.1

We have taken part in a randomized clinical trial in which 8 patients received continuous IOP monitoring for 24 h with hospital admittance. The inclusion criteria were having an age comprised between 18 and 85 years with similar open angle glaucoma diagnostic in both eyes (BE) and topical anti-hypertensive treatment stable for at least 4 weeks. Included patients did not undergo any type of ocular surgery in the past 6 months.

After carrying out the initial explorations, 7 patients were submitted to ongoing measurement in the eye with the Triggerfish® device up to 24 h. In the opposite eye, measurements were taken by means of Goldman tonometer (GAT) at the beginning, in the middle and at the end of said period.

Fig. 1 – Record of a continuous pressure curve in one of the patients of the study. The signal represents the amplitude of the ocular points corresponding to IOP changes with the cardiac cycle (zoom A). Zoom B indicates that the patient is asleep with occasional eyelid movements.

One patient was included in the control group with measurements taken with GAT in BE at 3 h intervals during the 24 h.

Finally, 6 patients completed the 24 h of IOP monitoring, 2 patients interrupted the monitoring after 12 h due to device intolerance, thus yielding incomplete data. Both referred nonspecific discomfort such as foreign body feeling and moderate conjunctival hyperemia.

The IOP measurements taken by means of GAT before, at 12 h and after the monitoring were similar both in the eye with the device (mean IOP in the range of 17.8 ± 1.3 mmHg) and in the opposite eye (mean IOP in the range of 16.6 ± 1.1 mmHg) in all the patients.

A high percentage (60%) of the highest IOP data were obtained during the night and while patients were asleep (mean IOP in the range of 21 ± 1.6 mmHg), the data matching increases in spontaneous ocular movements (Fig. 1). No severe adverse effects were registered in the patients.

Ninety percent of patients complied with anti-glaucoma treatment in subsequent visits without changes in the topical administration regime. One patient was surgically intervened one month after the trial due to high IOP recorded values (mean IOP in the range of 24 ± 2.1 mmHg).

Sensimed Triggerfish® is a device consisting in a soft contact lens equipped with a microchip and antenna which transmits the information captured by the sensor through wireless transmission protocols to a portable recorder. In this way, the patient can carry out daily activities during the monitoring period.

This type of recording enables treatment optimization and evaluation on the basis of IOP fluctuations.2 Accordingly, it adds an additional element to be taken into account in the diagnosis and treatment of patients with ocular hypertension or open angle glaucoma.

REFERENCES


Vodka eyeballing: Give me another drink... in the eye, please!∗

Vodka eyeballing: sírvame otra copa... ¡en el ojo, por favor!

Dear Sir,

We have just learned through the media about the first cases of vodka eyeballing in our country.1 This is the term given to a dangerous practice of ingesting alcohol by pouring spirits with high alcohol content, mainly vodka, into the eye to immediately achieve a state of drunkenness. By separating the eyelids and placing a vodka-filled beaker or the bottle over the eye, eyeballers affirm they double the intensity and immediacy of the liquor’s intoxicating effect spirit, achieving what they call an immediate kick because alcohol enters the bloodstream without previous digestive processing.

This dangerous game, bearing the name of a respectable Anglo-Saxon pastime, could damage the corneal epithelium and produce infection, inflammation, corneal ulcer, scarring and eventually loss of vision. Even though the origin of eyeballing is not clear, it seems to have appeared around the turn of the century, possibly in University parties in the United Kingdom from where it quickly spread across the Atlantic to take hold in American campuses. Others believe it was devised in Las Vegas where nightclub waitresses started eyeballing to show off and get more tips. The practice became more popular with the release, in 2000, of the British comedy Kevin & Perry go large, directed by Ed Bye and based on the story of Kevin the teenager, interpreted by Harry Enfield. In this film, actor Rhys Ifans (famous for playing the role of Hugh Grant’s barmy friend in Notting Hill) played the part of Eyeball Paul, a DJ who splashed spirits over his eyes in clubs and discos. Even though this damaging habit did not reach the mass media until 20102 and was highly criticized by the American Academy of Ophthalmology in June that year, it is considerably more popular than what people believe, with hundreds of video clips in social networks such as YouTube.

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