



Comment on: 'Eye drop technique and patient-reported problems in a real-world population of eye drop users'

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To the Editor:

In response to the article titled "Eye drop technique and patient-reported problems in a real-world population of eye drop users" published in your esteemed journal, which is a well thought off and written paper, I would like to raise few points regarding this study.

The article showed suboptimal eye drop technique in real-world clinical practice. Most common errors were touching the bottle to the eye or eyelid, failing to close the eye, and perform nasolacrimal occlusion. Many patients had never received education regarding the proper administration of eye drops [1].

As detrimental to the treatment of patients as the misuse of eye drops, is misidentifying the eye drops. The use of eye drops is the main method of treating eye diseases. However, some researchers have demonstrated the great difficulty of patients and sometimes even medical doctors to use the eye drops correctly. It is common to confuse the bottles, and that could be worse in people with color vision deficiency [2]. The use of different color caps is used in countries such as the United States and is useful to help identify the correct eye drop bottle. Despite this, research with glaucoma patients showed that they have difficulties in identifying eye drop bottles only trusting the different cap colors, and that could be due to visual changes that make color recognition harder [3]. This problem could be solved by using flexible material sleeves that fit different size of eye drops bottles. These sleeves can have different odors and textures. They are useful not only for easy visual identification but especially for patients with visual problems or illiterate, who cannot read labels. One research

has shown that these sleeves can facilitate recognition of patients with visual problems, increasing the identification rate from 19% to 99% using textured covers with odors [4]. Alternatively, applications using artificial intelligence installed on mobile devices can be developed for the identification of eye drops labels. Deep-learning networks such as MobileNet can be trained to automatically recognize labels [5].

Thus, research that improves the use of eye drops and avoids the confusion of the use of eye drops bottles are fundamental for the correct treatment of eye diseases.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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