

Glaucoma patients overrate their eyedrop skills

NEW YORK (Reuters Health) - Although more than 90 percent of patients taking ocular medication reported feeling confident about their eyedrop instillation technique, less than one third actually demonstrated adequate skills, researchers report in the Archives of Ophthalmology.

"A large component of adherence to a medical regimen," investigator **Dr. Alan L. Robin** told Reuters Health, "is the ability to adequately execute the proper ingestion or instillation of a medication. Physicians often do not dwell on this aspect as they think that one does not have to educate a patient on how to take a pill. However, the proper instillation of an eye drop into the eye is far different than taking a pill."

Robin went on to point out that apart from it being essential to get a drop into the eye, it's also important to avoid release of multiple drops, which leads to waste, increased costs and possible inadequate dosing should the medication run out prematurely.

Another point, Robin added, "is contamination. Patients frequently touch the drop bottle tip to the eye or eyelids. This could potentially lead to serious eye infections."

To find out how well patients were faring, **Robin of Johns Hopkins University, Baltimore**, and colleagues studied 139 patients with glaucoma or ocular hypertension who had been putting in their own drops for at least 6 months.

Overall, 129 (92.8 percent) reported having no problems putting in their eyedrops, 86 (61.9 percent) believed they never missed their eye when administering the drops and 110 (79.2 percent) said they never touched their eye with the bottle tip. In addition, 86 (61.9 percent) reported that they washed their hands before using the drops.

However, examination of video recordings made under single direct observation showed that when using a 15-milliliter bottle, only 21.9 percent managed to instill a single drop without touching the eye and only 30.8 percent were able to do so when using a 2.5-milliliter bottle.

Moreover, only 1.7 percent of the patients washed their hands before the procedure.

The researchers also found that patients used an average of 1.8 drops for every one drop needed with each of the two bottles.

"This is a major public health issue in ophthalmology," Robin said. Patients are unaware of the problem. They do not know that they are not getting the drop in the eye or why their eye drop bottles do not last long enough."

"Better instruction and observation are needed," he concluded, "in addition to the development of newer techniques of delivering medications to the eye."

SOURCE: Archives of Ophthalmology, June 2009.