Punctal plug deemed beneficial in ocular surface disease

May 4 2018

(HealthDay)—For patients with ocular surface disease (OSD) using

prostaglandin analogue monotherapy, a punctal plug improves OSD and reduces intraocular pressure (IOP), according to a study published online April 26 in *Clinical & Experimental Ophthalmology*.

Justin C. Sherwin, M.B., B.S., from the University of Oxford in the United Kingdom, and colleagues conducted a randomized controlled trial to examine whether a punctal plug improves OSD and reduces IOP in patients using prostaglandin analogue monotherapy. Out of 60 eligible subjects with symptomatic OSD from glaucoma clinics, 48 participated. One eye received an inferior punctal plug, so the fellow eye was considered a control. At baseline and after six weeks, ocular surface index, tear-film breakup time, Oxford Cornea Score, tear osmolarity, and IOP were compared.

The researchers found that following plug insertion there was a reduction in OSD index (mean difference [MD], 14.5). In eyes receiving plugs, the tear-film breakup time increased compared with control eyes (MD, 2.3 seconds), while there was a decrease in the Oxford Cornea Score (MD, 0.5) and tear osmolarity (MD, 10 mOsm/L). IOP was lowered significantly with punctal plugs (MD, 1.5 mm Hg). Efficacy was similar regardless of prostaglandin preservative status or lubricant drop use in subgroup analyses. Extrusion occurred in 8.5 percent, and epiphora increased in 6.5 percent of eyes, although plugs were well tolerated.

"Punctal plug insertion improves subjective and objective measures of OSD and results in a reduced IOP in patients with symptomatic ocular surface disease using prostaglandin analogue monotherapy," the authors write.

More information: Abstract/Full Text (subscription or payment may be required)