Contact lens sensor measures 24-hour intraocular pressure

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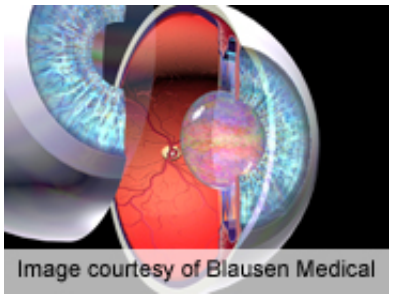

A contact lens sensor provides safe and tolerable 24-hour monitoring of intraocular pressure patterns in patients with or suspected of having glaucoma, according to research published online Aug. 13 in the *Archives of Ophthalmology*.

(HealthDay) -- A contact lens sensor (CLS) provides safe and tolerable 24-hour monitoring of intraocular pressure (IOP) patterns in patients with or suspected of having glaucoma, according to research published online Aug. 13 in the *Archives of Ophthalmology*.

In an effort to evaluate the safety, tolerability, and reproducibility of measurements during 24-hour IOP monitoring via CLS, Kaweh Mansouri, M.D., M.P.H., of the Hamilton Glaucoma Center at the University of California San Diego, and colleagues conducted a study involving 40 patients (mean age, 55.5 years) who were suspected of having (21 patients) or had been diagnosed with glaucoma (19 patients). Two separate 24-hour monitoring sessions were conducted one week apart (S1 and S2).

The researchers found that the main adverse events associated with the IOP-monitoring CLS included blurred vision in 82 percent, conjunctival hyperemia in 80 percent, and superficial punctate keratitis in 15 percent. There was no significant difference in the mean visual analogue scale score in the two sessions (27.2 mm in S1 and 23.8 mm in S2), with the overall correlation between the sessions being 0.59 (0.51 for patients with no glaucoma medication and 0.63 for those with medication).

"This study reveals that CLS provides a safe and well-tolerated approach to 24-hour IOP monitoring in glaucoma patients," the authors write. "The 24-hour IOP patterns seem to be fairly reproducible when repeated in the short term. The availability of continuous 24-hour IOP monitoring holds the promise to improve glaucoma care."

Several authors disclosed financial ties to medical device and pharmaceutical companies, including Sensimed, which funded the study and manufactures the CLS used in the study.

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