Medical Xpress

Novel technique measures internal nasal valve surface area

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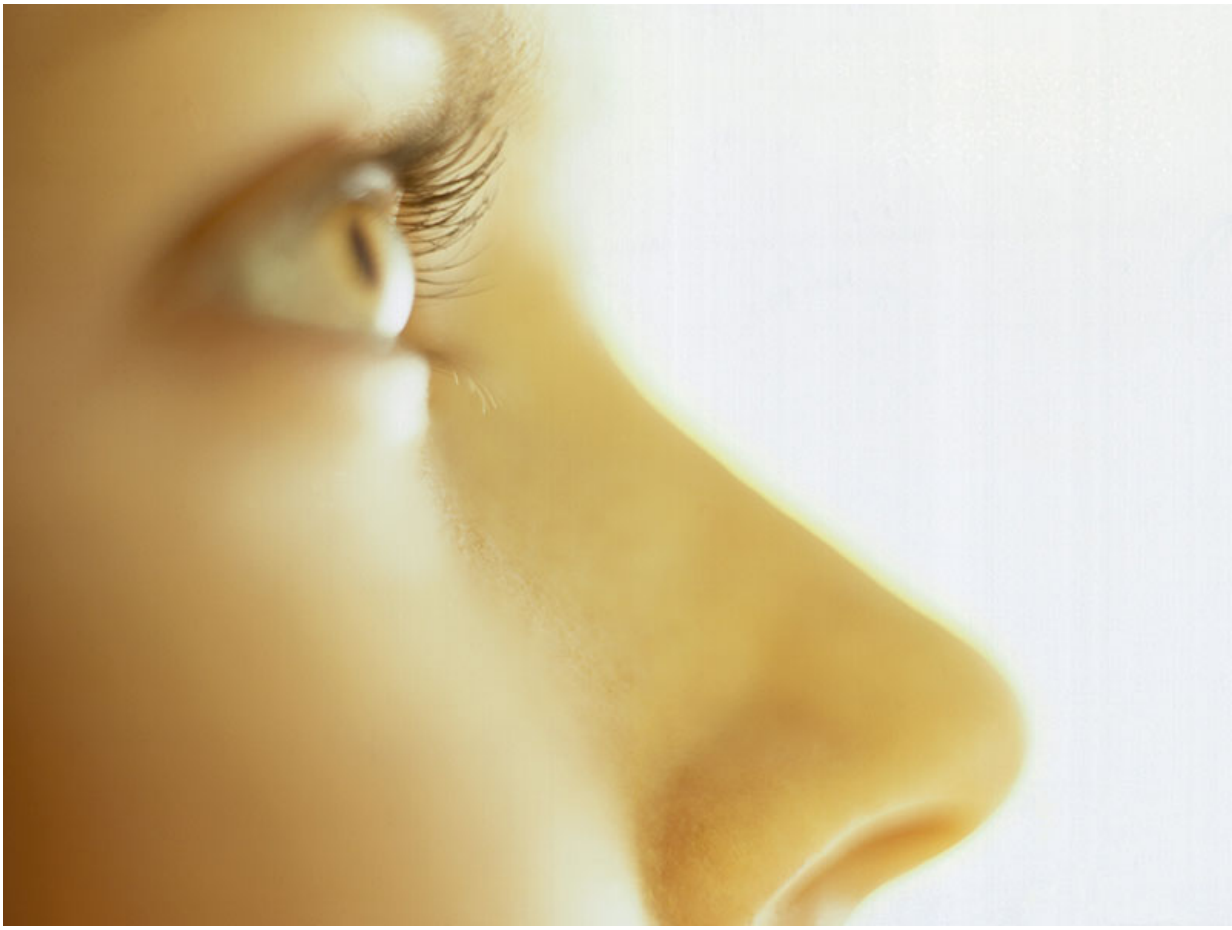

(HealthDay)—Endoscopic suction-assisted evaluation of the internal

nasal valve can measure internal nasal valve area and function, according to a study published online Jan. 14 in *JAMA Facial Plastic Surgery*.

James C. Marotta, M.D., from Marotta Facial Plastic Surgery, and Kyeesha Becoats, M.D., from Stony Brooke University—both in Smithtown, N.Y., examined whether intraoperative endoscopic suction-assisted evaluation of the internal nasal valve is useful for assessing internal nasal valve area and function. Twenty patients undergoing cosmetic and functional septorhinoplasty were enrolled; seven underwent follow-up at three years. The internal nasal valve was photographed endoscopically with and without suction preoperatively, postoperatively, and at three-year follow-up.

The researchers found that there was no difference in the observed static surface area of the internal nasal valve on comparison of preoperative and postoperative values (P = 0.58). Comparing preoperative and immediate postoperative values, there was no difference in the observed surface area of the internal nasal valve under negative pressure (P = 0.97). When exposed to negative sniff pressures, the surface area of the internal nasal valve was increased by 45 percent during the three-year follow-up (P = 0.03). Under negative pressure, the surface area measured a mean of 47,683 square pixels preoperatively and 85,612 square pixels at the three-year follow-up.

"The study outlines a novel technique for measuring internal nasal valve surface area and compliance preoperatively and postoperatively," the authors write.

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