MEDICAL BREAKTHROUGHS
RESEARCH SUMMARY

TOPIC: DETECTING HEART DISEASE IN YOUR EYES: MEDICINE'S NEXT BIG THING?
REPORT: **MB #4953**

BACKGROUND: Heart disease describes a range of conditions. A buildup of fatty plaques in arteries, or atherosclerosis can damage blood vessels and the heart. Plaque buildup causes narrowed or blocked blood vessels that can lead to a heart attack, chest pain (angina) or stroke. Coronary artery disease symptoms may be different for men and women. For instance, men are more likely to have chest pain. Women are more likely to have other signs and symptoms along with chest discomfort, such as shortness of breath, nausea, and extreme fatigue.
(Source: https://www.mayoclinic.org/diseases-conditions/heart-disease/symptoms-causes/syc-20353118)

DIAGNOSING: Most eye exams include an inspection of the outside and inside of the eye. An ophthalmologist will use an ophthalmoscope to examine things such as pupil reflexes, the lens of the eye, the retina, and the optic nerve. Hypertension isn't the only heart-related ailment that can be detected in the eye. "If we see small emboli in the eye, they can be coming either from an arteriosclerotic plaque in the carotid artery, which is the main artery that brings blood to the head and neck, or they can come from emboli in the heart," Dimitra Skondra, M.D., Ph.D., said. An arterial embolism occurs when an embolus has travelled through the arteries and become stuck in small vessels or organs like the brain or the retina. This can either restrict or block blood flow, which can result in tissue damage, a stroke, blindness or even death.
(Source: https://www.uchicagomedicine.org/forefront/heart-and-vascular-articles/what-can-your-eyes-tell-you-about-heart-disease)

NEW TECHNOLOGY: In a new study from Shiley Eye Institute at UC San Diego Health, researchers have identified a potential new marker that shows cardiovascular disease may be present in a patient using an optical coherence tomography (OCT) scan, a non-invasive diagnostic tool commonly used in ophthalmology and optometry clinics to create images of the retina. The finding suggests it may be possible to detect heart disease during an eye examination. The research team examined lesions of the retina, the innermost, light-sensitive layer of the eye, to determine if a cardiovascular disorder may be present.
(Source: https://ucsdnews.ucsd.edu/pressrelease/heart-disease-is-in-the-eye-of-the-beholder)

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If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com