

**Diagnosis of Coronary Disease by the Noninvasive OATH (Our Approach To Health) Technique**

*Kreisberg, B<sup>1</sup>; Goldman, S<sup>1</sup>; Ogden, J<sup>2</sup>; Hinchliffe, J<sup>2</sup>; Kogan-Boguslavsky, L<sup>1</sup>; Danenberg, H<sup>1</sup>; Lotan, C<sup>1</sup>; Pollak, A<sup>1</sup>*

*<sup>1</sup>Hadassah - Hebrew University Medical Center, Jerusalem, Israel; <sup>2</sup>OATH Natural Primary and Preventative Health Research, London, UK*

*Background* Coronary artery disease (CAD) is a complex process involving the vessel wall, blood constituents and blood flow. Sensitive diagnostic tools are important in CAD prevention and management. Coronary angiography (CA) is widely used to determine vessel lumen narrowing and to treat focal stenoses. However, angiography is weak in assessing vessel wall pathology including plaque vulnerability, endothelial function and inflammatory determinants. Thus, CA may underestimate true patient risk. Reliable and accessible tools for early diagnosis and distinction between low- and high-risk patients are needed. We evaluated the OATH (Our Approach To Health) system in diagnosing the severity of CAD and estimating patient risk.

*Methods* Thirty patients referred to diagnostic CA due to suspected CAD were enrolled in this study. OATH diagnosis was performed prior to CA, based on blood pressure, urine and saliva analysis, wet and dry blood analysis, heart rate variability, body mass index, skin electrical impedance and habitual patterns. A prediction of CAD severity and overall risk based on the OATH algorithm was compared to CA findings of CAD extent and severity.

*Results* OATH noninvasive method predicted the presence of significant coronary stenoses at 76% accuracy. When combined with ischemic parameters, OATH prediction of CAD stenosis/ischemia risk achieved 96.6% accuracy.

*Conclusions* OATH correlated with CA findings, predicting the presence of CAD in addition to overall ischemic risk. The OATH system is a new noninvasive approach to define significant levels of ischemia and contributing pathological findings, and may add valuable data as for underlying cardiovascular risk.