Aarca Research announces clinical validation of IHRA, first-of-its-kind early detection test for metabolic comorbidities

Aarca Research announced clinical validation of their non-invasive test's accuracy for early detection of Type 2 Diabetes, Hypertension, and Dyslipidemia.

BANGALORE, KARNATAKA, INDIA, February 12, 2022 /EINPresswire.com/ -- Aarca Research India Pvt Ltd today announced pivotal clinical validation data showing the company's non-invasive test's accuracy for early detection of Type 2 Diabetes, Hypertension, and Dyslipidemia that can significantly improve the clinical outcomes and reduce healthcare costs. The new findings show that their product IHRA, a first-of-its-kind screening test, accurately classifies metabolic comorbidities risk in the general population so that those with identified low and medium risk can take measures and make lifestyle modifications, while those with high risk may receive more timely diagnosis and treatment by following clinical guidelines. The findings will be made available to the public in the coming weeks.

"IHRA is an effective and reliable solution for the early detection of metabolic comorbidities such as Type II Diabetes, Hypertension and Dyslipidemia," said Dr Chikkalingaiah Siddegowda, Medstar speciality Hospital, who was a Principal Investigator of the study. He further noted, "IHRA can be utilised in very early subclinical stages, long before the intended medical conditions can be clinically diagnosed using current methods like a blood test, or a blood pressure cuff. It can be used as a screening tool for the early detection of the onset of these conditions and to inform the healthcare personnel for further investigations. IHRA has the potential for widespread improvement in clinical outcomes and deployment in large public health programs across communities."

For this study, researchers evaluated the performance of the IHRA solution on an independent validation set of 497 patients from two centres. The research has been conducted in partnership with an independent contract research organisation, iDD Research. The study got the necessary approvals and was registered in the Clinical Trial Registry of India. This cross-sectional, multi-centre, pilot study was conducted among both male and female study participants aged between 21 to 65 years with a median of 39 years.

Results of the validation study demonstrate that the ability of IHRA's derived risk score for Type II Diabetes to predict whether a person has Type II Diabetes was high [AUC = 0.88; p = 0.0001] with a sensitivity and specificity of 86% and 93% respectively taking OGTT>140 as gold standard test

and IHRA T2DM cut-off risk score is >=4. The positive predictive values and negative predictive values were 86% and 93% respectively. The ability of IHRA derived risk score for Type II Diabetes to predict whether a person has Type II Diabetes was high [AUC = 0.84; p = 0.0001] with a sensitivity and specificity of 85% and 82% respectively taking FBS>105 as gold standard test and when IHRA T2DM cut-off risk score is >=4. The positive predictive values and negative predictive values were 60% and 95% respectively. The ability of IHRA derived risk score for Hypertension to predict whether a person has Hypertension was high [AUC = 0.84; p = 0.0001] with a sensitivity and specificity of 80% and 95% respectively taking SBP>135 and DBP>90 as gold standard test and IHRA HTN cut-off risk score is >=5. The positive predictive values and negative predictive values were 78% and 95% respectively. The ability of IHRA derived risk score for Dyslipidemia to differentiate whether a person has Dyslipidemia was high [AUC = 0.77; p = 0.0001] with a sensitivity and specificity of 74% and 89% respectively taking LDL>100 and TC>200 as gold standard test and IHRA Dyslipidemia cut-off risk score is >=3. The positive predictive values and negative predictive values were 92% and 68% respectively.
IHRA solution and this clinical validation study data was further reviewed and attested independently by additional 35 doctors of four different departments from 11 different cities in India, confirming the accuracy and claims provided by Aarca Research.

“What is exciting about this data is that doctors will be able to tell their patients the necessary steps to be taken before these conditions become clinically significant with confidence,” said Anuhya Choda, Chief Medical Officer of Aarca Research. “At the same time, they can be confident in guiding patients who are high risk to further diagnostic procedures, in line with current guidelines. These findings suggest that IHRA early detection test will be able to help patients delay or avoid the onset of these conditions, if the necessary steps are taken. We are excited about the opportunity to transform the early assessment of metabolic comorbidities using a simple thermal video.”

IHRA early detection test uses a medically approved thermal camera to detect blood flow related changes associated with metabolic changes under the influence of Type 2 diabetes, Hypertension and Dyslipidemia in the general population. Aarca Research developed this patented software using computer vision and machine learning models on a rich training set of samples from more than 3000 patients representing a wide range of demographic variability across India.

Currently, the IHRA screening test is available through a select number of partners in four cities in India and expects to expand to ten cities by the second half of 2022. The company aims to make the test available to partners in global markets in 2023, helping its expansion.

About Aarca Research:
Aarca Research India Private Limited (Aarca Research) is a health-tech company registered under the Companies Act, 2013 and is recognised by StartUp India Scheme. Aarca Research is an ISO 9001:2015, ISO/IEC 27001:2013 and SOC 2 certified company. IHRA is ISO 13485: 2016 certified and cleared by CDSCO for distribution in India. IHRA also received preliminary feedback from

FDA, where it is recognised as a first-of-its-kind stand-alone subclinical screening test. Aarca Research is awarded NASSCOM Emerge50 company for the year 2020 and recognised as Top10 companies in Data Innovation Bazaar, a Startup India competition. Aarca Research is also part of Matter.Health in Chicago USA and JioGenNext, MAP'21 in India. Aarca Research is a healthcare service provider on the Ayushman Bharat Digital Mission (ABDM) a program of the Ministry of Health and Family Welfare.

More information about Aarca Research can be found here: www.aarcaresearh.com

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