UNMET NEED

Cardiologists’ visual estimation may be incorrectly assessing coronary stenosis severity in up to 20% of cases. As a result, many patients are exposed to unnecessary invasive stenting procedures or are not receiving the important treatments they need.

Older computer-based techniques have had significant limitations that restrict the ability to adapt them into routine practice.

SOLUTION

MCIRCC members are constructing a fully automated, computer-based platform – AngioInsight – that quickly and accurately aids with interpretation of coronary angiogram videos obtained in routine practice, eliminating variability in human interpretation.

When constructed, a public dataset of coronary angiogram videos will be available to encourage additional innovations and development of new algorithms.

COMPETITIVE ADVANTAGE

Pilot work conducted includes exploration of a proof-of-concept version of AngioInsight, exploring high quality, minimal disease, and limited artifact angiogram videos to train the algorithm. A promising number of correct identifications occurred. More work will be conducted to determine the accurate identification of more significant and complex blockages. The U-M has received a patent (with another pending) and is commercializing AngioInsight.