China approves AI software to assess symptoms of Parkinson's disease

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The use of artificial intelligence technology to aid assessment and treatment is the current hotspot of many companies

Chinese startup NERVTEX's MoDAS (Movement Dysfunction Assessment Software) system, which is a First-in-Class Artificial Intelligence/Machine Learning (AI/ML)- based Software as a Medical Device (SaMD) for the analysis of motor symptoms of Parkinson's disease and other movement disorders, has been approved by the China National Medical Products Administration, making it the first video-based AI-powered medical device for the assessment of movement disorders.

MoDAS uses consumer-level smart mobile devices to conveniently capture video of the patient's movement status. By adapting AI technologies such as computer vision and deep learning, MoDAS automatically provides doctors with objective and quantitative information for clinical decision support, relieving doctors from time-consuming observation and evaluation, and greatly improving the evaluation and treatment efficiency of movement disorders such as Parkinson's disease.

Compared to wearable motion sensors, MoDAS effectively avoids the interference of physical devices with human movement, eliminates the time consumed by wearing and disinfecting sensors, and reduces the difficulty and complexity of deployment in medical institutes and primary healthcare services based entirely on video analysis.

In a multi-centre clinical study of Parkinson's disease patients led by Shanghai Changhai Hospital, the output result of MoDAS was highly consistent with clinicians' diagnosis based on existing criteria. No adverse events were observed in patients in this study, demonstrating excellent safety and efficacy. According to the experts involved in the study, MoDAS fits well into the current clinical workflow and its mobile design allows access to graphical data in real time, improving the efficiency and quality of clinical evaluation.