

Role of Machine Learning and Artificial Intelligence in Encephalytic Diagnosis and Treatment †

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Abstract: Many machine learning algorithms have proved to have much superior prediction power than more traditional alternatives in various field-specific datasets. This ground-breaking study expands on previous research into tissue fate in acute ischemic stroke. Importantly, such informatics may provide insights much beyond what we can achieve as physicians in everyday stroke care, where every minute counts in terms of patient outcomes. Several automatic or reflexive constraints are produced by such machine learning technologies. Stroke is the world's second-greatest source of death and disability-adjusted life years. Even though these populations are small compared to the expected task, they took advantage of the power of separate voxel-based approaches to forecast tissue fate in the brain following an ischemic stroke. While publications applying machine learning methods to stroke are published regularly, the majority of these have focused on stroke imaging. Furthermore, the growth of machine learning necessitates education, which must come from clinical care models where much of practice is based on intuition rather than proof. Is AI capable of simulating the human brain's complicated medical decision-making in stroke care? Is this figuratively deep learning or simply superficial insight into the information that imaging can reveal in acute ischemic stroke? Machine learning (ML) is currently being used to assist in clinical diagnosis and prognosis prediction. Stroke care, on the other hand, entails significantly more than imaging, and clinical decision-making may go far beyond a basic logical procedure. There have been no reviews of studies that have created machine learning models to predict stroke outcomes using structured data that we are aware of. Efforts to simplify stroke care with guidelines, care pathways, algorithms, and even the possibility of robotics may fall short of obtaining the competence needed to make difficult medical decisions.

Keywords: artificial intelligence; machine learning; robotics; deep learning.

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Conflicts of Interest

The authors declare no conflict of interest.