(54) Title of the invention : AI BASED PREVENTION AND PREDICTION OF RESTLESS LEGS SYNDROME IN PATIENTS WITH LIVER PROBLEM USING MACHINE LEARNING AND DEEP LEARNING ALGORITHMS

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(57) Abstract :

AI based Prevention and Prediction of Restless Legs Syndrome in Patients with Liver problem using Machine Learning and deep learning algorithms Abstract: Utilizing artificial intelligence in healthcare can help with patient care, diagnosis, and sleep problems. Researchers intended to determine the prevalence of restless leg syndrome (RLS) among type 2 diabetics. They did it by utilising multilayer perceptron technology, which is based on artificial intelligence (MLP). There were 300 cases of type 2 diabetes among people between the ages of 18 and 80. Using point-biserial and Pearson Chi-Square correlations, the connections between RLS and risk factors were analysed. For RLS, a backpropagation MLP trained with automated supervised learning was utilised. Up to 63 percent of participants developed increased blood pressure and peripheral neuropathy as a result of their medication (69 percent). The most often cited scaled features were fatigue (18 percent) and impact on mood (14 percent). Smoking, hypertension, and chronic renal failure are statistically significant risk factors for RLS (CRF). 95 percent of the time, the MLP model accurately anticipated the outcome, with a cross entropy error of only 0.5 percent. The most significant scored symptoms were need/urge to move, relief by moving, sleep disturbance, and impact on mood (51.3 percent). Using AI-based models to predict the onset of RLS symptoms will enable clinicians to take preventative actions to avoid subsequent difficulties.

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