LITERATURE SURVEY

In this system we will describe how to predict risk of liver disease for a person, based on the blood test report results of the user using various machine learning algorithms. The final output was predicted based on the most accurate machine learning algorithm. Based on the accurate model they designed a system which asks a person to enter the details of his/her blood test report. Then the system uses the most accurate model which is trained to predict, whether a person has risk of liver disease or not. [1]

In the 21st-century, the issue of liver disease has been increasing all over the world. The overall percentage of death by liver disease is 3.5% worldwide. Chronic Liver disease is also considered to be one of the deadly diseases, so early detection and treatment can recover the disease easily. This research work is based on liver disease prediction using machine learning algorithms. Liver disease prediction has various levels of steps involved, pre-processing, feature extraction, and classification. In this s research work, a hybrid classification method is proposed for liver disease prediction. And Datasets are collected from the Kaggle database of Indian liver patient records. The proposed model achieved an accuracy of 77.58%.[2]

Machine learning (ML) utilizes artificial intelligence to generate predictive models efficiently and more effectively than conventional methods through detection of hidden patterns within large data sets. In this review, we examine the literature pertaining to machine learning in hepatology and liver transplant medicine. We provide an overview of the strengths and limitations of ML tools and their potential applications to both clinical and molecular data in hepatology. ML has been applied to various types of data in liver disease research, including clinical, demographic, molecular, radiological, and pathological data. We anticipate that use of ML tools to generate predictive algorithms will change the face of clinical practice in hepatology and transplantation.[3]

Data Mining technologies have been widely used in the process of medical diagnosis and prognosis, extensively. In this project, the patient data sets are analyzed for the predictability of the subject to have a liver disease based purely on a widely analyzed classification model. This System predict the same conclusive result with a higher rate of accuracy. J48 algorithm is considered to be a better performing algorithm when it comes to feature selection with an accuracy rate of 95.04%.[4]

Various kinds of pressure and unbalanced eating behaviors, along with alcohol inhalation and on-going toxic gases, etc, cause lever disease in patients.For this purpose, the type of data mining algorithms can help medical doctors to diagnose patients in hospital. This paper analyzes meta learning algorithms to classify the Indian liver patient dataset. Adaboost, logitboost, Bagging and Grading meta learning algorithms are applied to this data set. Key role is played by Grading algorithm in shaping enhanced classification accuracy (Correct Classification Rate) of a data set.[5]

[1] LIVER DISEASE PREDICTION SYSTEM USING MACHINE LEARNING TECHNIQUES- Rakshith D B, Mrigank Srivastava, Ashwani Kumar, Gururaj S P (2021).

[2] THE DIAGONSIS OF CHRONIC LIVER DISEASE USING MACHINE LEARNING TECHNIQUES-Golmei Shaheamlung, Harshpreet Kaur (2021).

[3] APPLYING MACHINE LEARNING IN LIVER DISEASE AND TRANSPLANTATION-Ashley Spann, Angeline Yasodhara, Justin Kang, Kymberly Watt, Bo Wang, Anna Goldenberg, Mamatha Bhat (2020).

[4] LIVER DISEASE PREDICTION USING MACHINE LEARNING ALGORITHMS- Vasan Durai, Suyan Ramesh, Dinesh Kalthireddy (2019).

[5]COMPARATIVE ANALYSIS OF META LEARNING ALGORITHMS FOR LEVER DISEASE DETECTION -Maruf Pasha, Meherwar Fatima (2017)