

Ischemic Hepatitis (IH) is a liver injury preceded by hepatocyte death. The only way to diagnose this disease is to eliminate the possibilities of all other liver injuries currently. To combat this issue, our goal is to explore models that will be able to predict the outcome of a person who suffers from IH based on various biomedical indicators such as creatinine peak, international normalized ratio peak, aspartate aminotransferase peak, alanine transaminase peak, and bilirubin peak from a real patient data set collected across multi centers from US by the Acute Liver Failure Study Group. We analyze the data utilizing the logistic regression, regression tree method including random forest, BART to predict the outcome of the patient suffering from IH and applying SMOTE, and boosting techniques to improve the prediction accuracy. The prediction accuracy of our models including outliers is best given by logistic regression (78.12%) in contrast to the accuracy of 73.33% of models without outliers.