**Objective:**

# Transient Ischemic Attack (TIA) prediction using support vector machines (SVM), Collaboration with Dr. A. Hande, Department of Neurological Surgery, Fortis Hospital, Navi Mumbai. https://www.drashokhande.com/about-us

# Variables examples weight, height, BMI, physical activity, diet, smoking, etc.

**Method:**

Read dataset with 4 variables TIA, weight, height, basal metabolic index (BMI), Splitted the dataset into the training set and test sets with 0.75 ratio, followed by feature scaling, followed by fitting support vector machine (SVM) to the Training set. A Confusion Matrix was generated to test the efficiency of SVM classification.

**Result:**

Results of the test data set and confusion matrix is as follows:

Predicted correctly; Predicted incorrectly.

|  |  |  |
| --- | --- | --- |
|  | **0** | **1** |
| **0** | 151 | 0 |
| **1** | 41 | 0 |



**Conclusion:**

SVM predicts 0’s or non-stroke patients with 100% accuracy (151), however, none of the 1’s or TIA are predicted accurately (41).

**Future Scope:**

Additional variables with numeric dataset is required improving TIA prediction accuracy.