

Exploratory Data Analysis(EDA) to Predict Stroke in Patients

This a report on an EDA performed on random patient data to predict stroke.

The risk factors captured are

- Age
- Body Mass Index (BMI)
- Hypertension
- Heart Disease
- Smoking Status
- Blood Sugar

The normal BMI is within the range of 18-25 and the normal blood sugar is 140mg/dl.

Below are graphs to determine patients with stroke based on the above mentioned risk factors.

Number of Stroke Patients

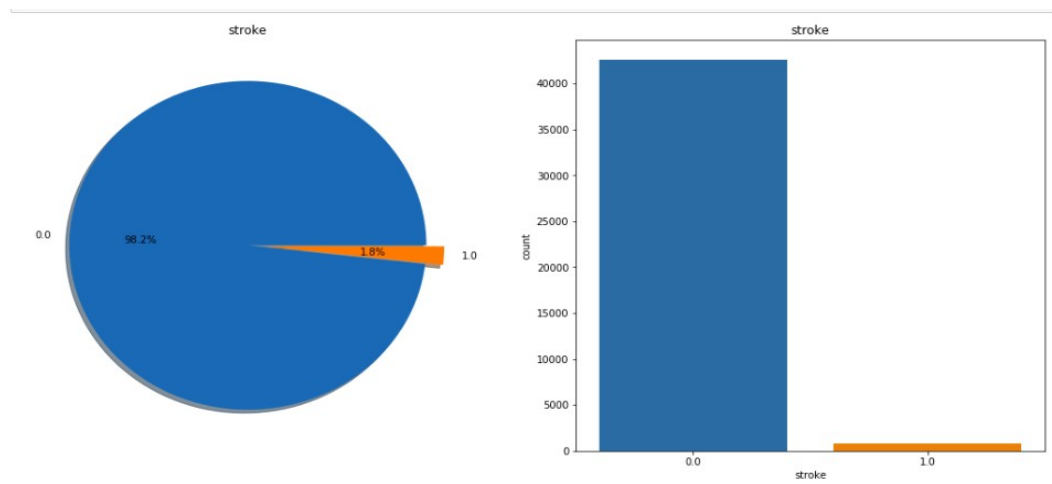


Figure1: Number of stroke patients in the dataset

Age of Patients with Stroke

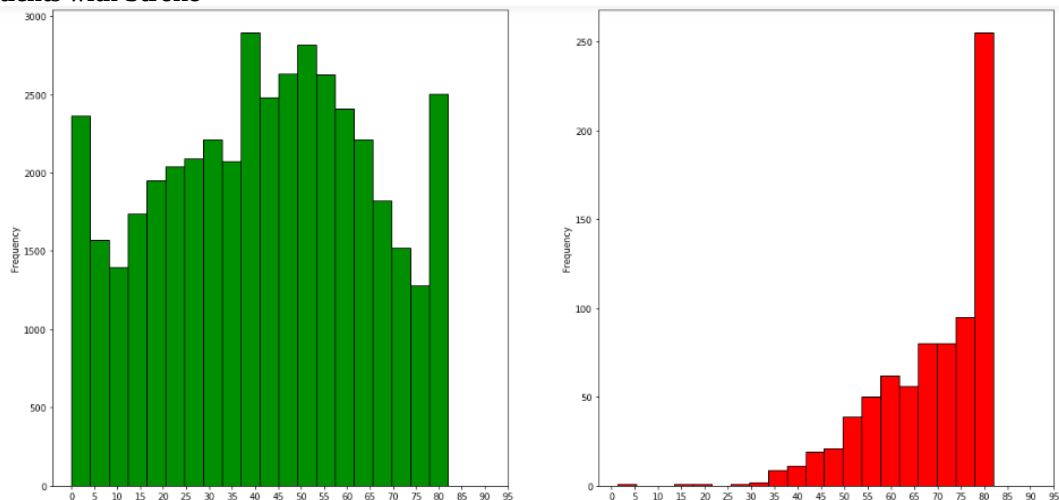


Figure2: Age of patients against patients with stroke

Observation

From figure2 we can identify the following:

- Least number of stroke patients were under 30 years of age
- Highest number of stroke patients were above 50 years

Thus, older patients are more prone to stroke than the younger ones.

Gender of Stroke Patients

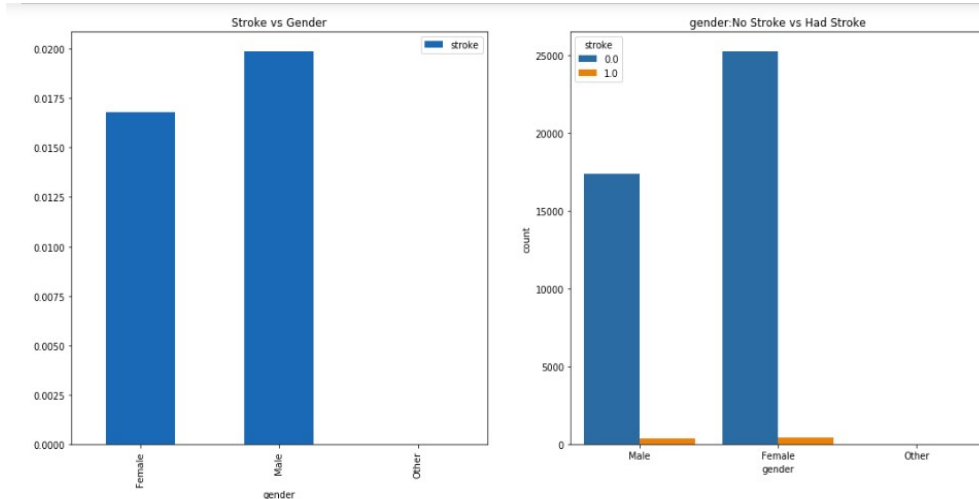


Figure3: Gender against patients with stroke

Observation

From *figure3* we can see that more females had stroke than male.

Average Sugar Level and Smoking Status of Patients

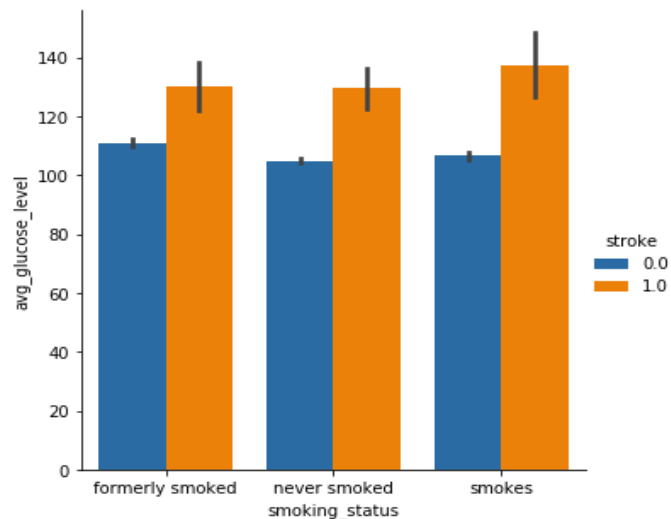


Figure4: Average Glucose Level and Smoking Status against Stroke Patients

Observation

From *figure4* the following observations were made;

- Patients who never smoked with normal sugar level were the least number of stroke patients
- Patients who formerly smoked with slightly higher sugar levels had higher number of stroke patients
- Majority of the stroke patients were individuals who currently smoked and had higher blood sugar levels