Heart Disease Prediction

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Introduction

Heart disease is one of the main reasons for death in Sri Lanka. We can identify any type of disease that affects the heart or blood vessels as heart disease There is no single thing that causes heart disease and stroke, but there are several risk factors that contribute to it. The most common heart disease is coronary artery disease. Those diseases lead to chest pain and heart attack. For this there are several reasons may be caused. For example blood pressure, cholesterol rate, maximum heart rate, and age

Attributes

- age: age in years

- sex: person sex (1 = male; 0 = female)

- cp: chest pain type

- trestbps: resting blood pressure (in mm Hg on admission to the hospital)

- chol: serum cholestoral in mg/dl

- fbs: (fasting blood sugar > 120 mg/dl) (1 = true; 0 = false)

- restecg: resting electrocardiographic results

- thalach: The person's maximum heart rate achieved

- exang: Exercise induced angina (1 = yes; 0 = no)

- oldpeak = ST depression induced by exercise relative to rest

- slope: the slope of the peak exercise ST segment (Value 1: upsloping, Value 2: flat, Value 3: downsloping)

- ca: The number of major vessels (0-3)

- thal: A blood disorder called thalassemia (3 = normal; 6 = fixed defect; 7 = reversable defect)

- target: Heart disease (0 = no, 1 = yes)

Important categorical variable

Chest pain

- Value 0: asymptomatic
- Value 1: atypical angina
- Value 2: non-anginal pain
- Value 3: typical angina
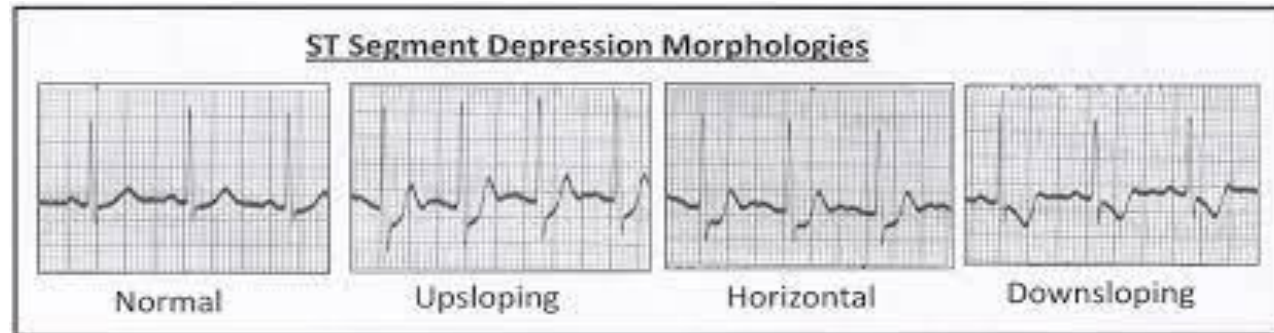
Resting electrocardiographic results(restecg)

- Value 0: normal
- Value 1: having ST-T wave abnormality (T wave inversions and/or ST elevation or depression of > 0.05 mV)
- Value 2: showing probable or definite left ventricular hypertrophy by Estes' criteria

Thalassemia(thal)

❖ Value 1: normal blood flow

❖ Value 2: fixed defect (no blood flow in some part of the heart)

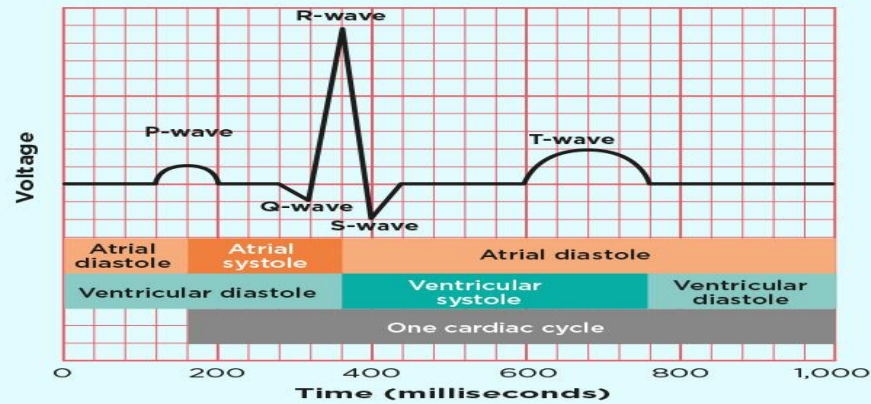❖ Value 3: reversible defect (a blood flow is observed but it is not normal)

slope of the peak exercise (slope)

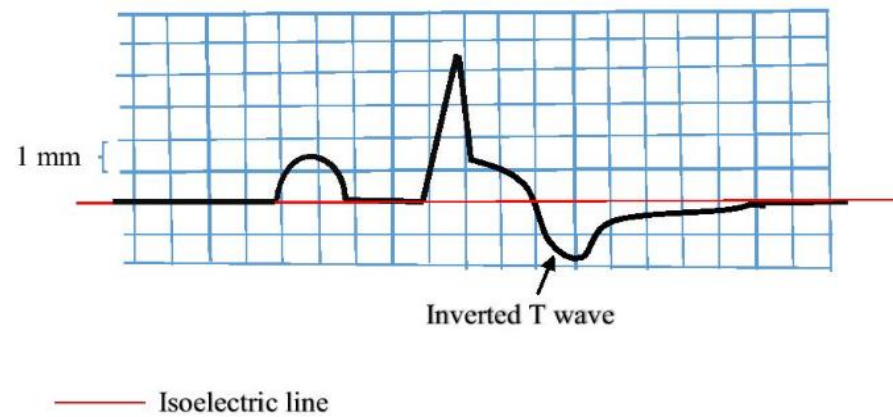❖ Value 1: upsloping

❖ Value 2: flat

❖ Value 3: downsloping

ST Segment Depression Morphologies

Normal   Upsloping   Horizontal   Downsloping

Extra Information

Basic features of ECG

Thanks You