Atherogenic plasma index in acute ischaemic stroke patients at a tertiary care centre in the Northern Province of Sri Lanka: A preliminary study

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OBJECTIVES

Atherogenic plasma index(API) is a useful predictor of atherogenicity.

The objective of our study is to assess API amongst patients presenting with their first ever ischaemic stroke and determine a cut off value for high risk in our population.

METHODS

A cross sectional, non-interventional, prospective study was carried out at medical wards Teaching Hospital Jaffna, recruiting all patients above 18 years presenting with the first ever ischaemic stroke.

Those with cardioembolic or stroke of other determined aetiology were excluded. Fasting venous blood sample was analysed to determine T.Chol, TG, HDL-C levels, LDL-C levels. API=Log(TG/HDL-C). Data was analysed using SPSS-19 and cut off values for API was determined using ROC curve. Based on the previous studies API=0.5 was used as the cut off value for statistical calculations.

RESULTS

- Total 70 subjects

Figure 1 : Descriptive Statistics

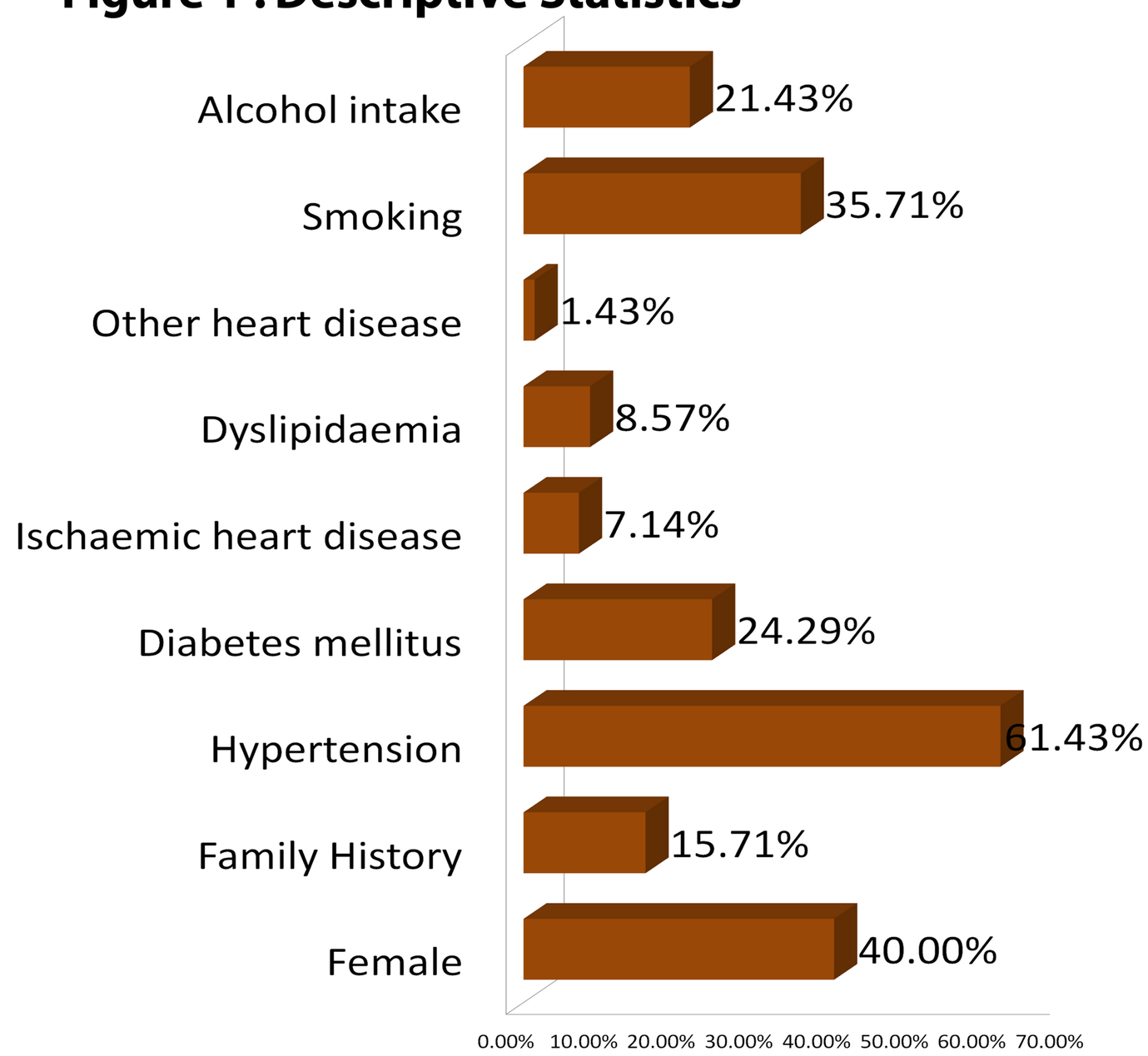
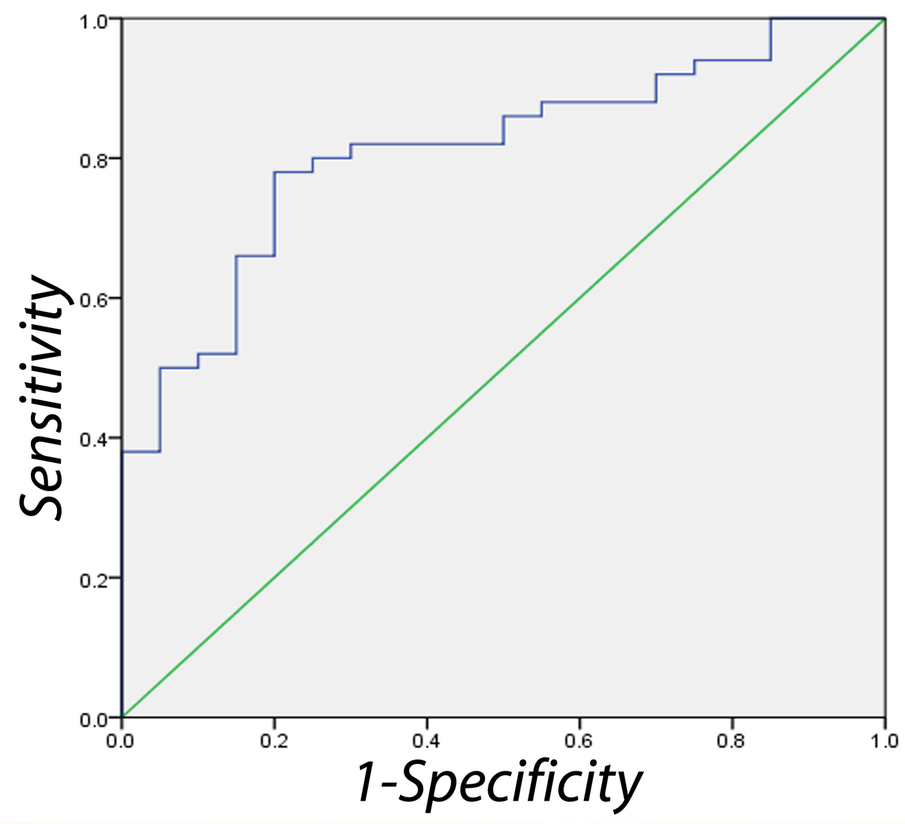


Figure 2 : Measures of variability

Parameters	Mean ± SD
Age (Years)	69.31 ± 10.51
TG (mg/dl)	118.91 ± 52.64
T.Chol (mg/dl)	204.77 ± 55.15
HDL (mg/dl)	47.85 ± 3.44
LDL (mg/dl)	131.45 ± 44.96
API	0.379 ± 0.205

Figure 3 : ROC curve



- Based on a cut off value of API=0.5, API had a sensitivity of 38%, specificity of 95%, PPV of 95% and NPV of 38% in our population.
- In our population using the ROC curve cut of 0.24 (as in some studies) will give a sensitivity of 82% but a false positive rate of 50%.
- **As per ROC curve an API of 0.312 gives a sensitivity of 80% and a false positive rate of 25% for our population.**

CONCLUSION

Our preliminary study shows an **API of 0.312** would be a useful value to determine high risk in our population.