

SUMMARY AND CONCLUSIONS

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Our study compared the endothelial function of 40 hypertensive subjects with 40 healthy matched controls.

The endothelium dependant function, as represented by the Flow mediated Dilatation (FMD%) was significantly impaired in hypertensives as compared to controls. Endothelium independent function, as represented by glyceryl trinitrate Mediated Dilatation (GTN%) was also impaired in the hypertensive group.

Longer duration of hypertension was associated with higher impairment of endothelium dependent function.

There was inverse correlation of serum total cholesterol, LDL-cholesterol and triglyceride levels, while a direct correlation of HDL – cholesterol levels with FMD%.

This showed that dyslipidemia was associated with impaired endothelium dependant function in hypertensives.

Presence of left ventricular hypertrophy was associated with impaired endothelium dependant function in the hypertensives.

Thus, our study shows that the detection of endothelial dysfunction non-invasively by brachial artery ultrasound can be used to detect early atherosclerosis in patients with hypertension, even before development of detectable gross atherosclerosis lesions.