
Association between Body Mass Index and Blood Pressure among Hypertensive Patients Attending Medical Clinics Teaching Hospital, Batticaloa

Karthikesu Karthijekan^{1*}, Karthikesu Kartheepan¹

Overweight and obesity are known to be risk factors of hypertension. The aim of this study was to investigate the association between body mass index and blood pressure among HT patients who attending medical clinics, Teaching Hospital, Batticaloa. Descriptive cross sectional study carried out among 212 HT patients by using Simple random sampling. Data were collected with structured, interviewer administered questionnaire and anthropometric measurements of weight, height and waist circumference were measured by using appropriate measuring scales.

Patient's blood pressure readings were recorded manually using mercury sphygmomanometers. Patients who had the blood pressure more than 140/90 mmHg in last six consecutive readings were defined as Cases and the blood pressure less than 140/90 mmHg in last six consecutive reading defined as Controls. Among the 212 patients' controls and cases were 35.8% and 64.2% respectively. 37.7 % of them were male and 62.3 % were female. 63.7 % of them were Tamil, 26.8%, 9.0% and 0.5% were Muslims, Burgers and Sinhalese respectively. Among them uneducated, family history of HT, currently smoking and drinking habits were 18.9%, 44.3%, 9.0% and 16.5% respectively. Mean values of systolic blood pressure and diastolic blood pressure were 136.95 ± 10.84 mmHg, 85.82 mmHg ± 07.87 mmHg respectively. Majority (70%) of the patients aged were more than 50 years. Among them underweight, normal weight, overweight and obesity were 9.4%, 39.2%, 34.9% and 16.5% respectively. Overweight and obesity among the cases were 37.5%, 19.1%, and among controls 30.3% and 11.8% respectively. Central obesity among cases and controls were 35.3% and 31.6% respectively. Chi-square test was used to find out the association for selected variables. There was a significant association between hypertension and body mass index ($P = 0.019$, $X^2 = 9.98$) but not with central obesity ($P = 0.584$, $X^2 = 0.3$). In conclusion, among patients attending the hypertensive clinic, increased body mass index was positively associated with blood pressure.

¹ Eastern University, Sri Lanka. *jeshikarthy@gmail.com