

Neck circumference as a measure of central obesity in patients with metabolic syndrome

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Objective: To study the neck circumference as a measure of central obesity in patients with metabolic syndrome at the medical wards of Military Hospital, Yangon.

Study design and methodology: Hospital based cross-sectional descriptive study. Time frame was between October 2013 and September 2015. A total of fifty nine patients were included in this study. International Diabetes federation (2005) criteria for metabolic syndrome was used to detect the patients with metabolic syndrome. Then, measurement of neck circumference was done in these patients.

Results: Among 59 patients with metabolic syndrome, most of the patients were ages between 30-39 years and 45.8% were male and 54.2% were female. Those who are age between 50-60 (55.9%) had increased neck circumference and it was found to be statistically significant (P value=0.009). The gender difference was not statistically significant. Mean neck circumference in male was 35.96 ± 3.52 and in female was 36.03 ± 2.3 . Regarding association of neck circumference and separate components of metabolic syndrome, fasting triglycerides in male patients and fasting blood sugar in both sexes were significantly associated with increased neck circumference. (P=0.038, P=0.003, P=0.012). On the other hand, fasting triglycerides in female and high density lipoprotein (HDL), high blood pressure in both sexes were not statistically significant.

Conclusions: Increased fasting blood sugar level was found among the patients with the metabolic syndrome who also had increased neck circumference and it was significant in both sexes while statistically significant association between the neck circumference and triglycerides was found only in male.