

# **HUBUNGAN LINGKAR PINGGANG DENGAN BEBERAPA FAKTOR RISIKO SINDROM METABOLIK**

Artikel Penelitian

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disusun oleh :

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# THE CORRELATION BETWEEN WAIST CIRCUMFERENCE WITH SOME OF METABOLIC SYNDROME RISK FACTORS

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## ABSTRACT

### Background

Cardiovascular disease is a main cause of mortality. Metabolic syndrome has correlation with cardiovascular disease. The increasing of metabolic syndrome is in line with the increasing of central obesity so waist circumference can be used as indicator for metabolic syndrome.

### Objectives

To analyze correlation between waist circumference with some of metabolic syndrome risk factor.

### Methods

The study was done with cross-sectional design. The study was done to 36 subjects that were chosen by consecutive sampling. Characteristics of the subjects, physical activity, and food consumption were collected by interviewing while waist circumference used nonstretchable tape. Height and weight were obtained by microtise and digital weight scale. Blood samples were taken to measure lipid profile and fasting plasma glucose, while blood pressure was measured by sphygmomanometer.

### Result

The result of the study showed one subject had metabolic syndrome and 11,1% subject had high fasting blood glucose, 11,1% subject had high triglyceride plasma, 5,9% subject had low HDL cholesterol, 19,4% subject had high diastole blood pressure, and 27,8% subject had high systole blood pressure. There were significantly correlated of waist circumference with systole and diastole blood pressure after controlled by confounding variable.

### Conclusion

The study showed that 75% subject had central obesity and one subject had metabolic syndrome. There were significantly correlated of waist circumference with systole and diastole blood pressure after controlled by confounding variable.

**Keyword** : *waist circumference, HDL cholesterol, triglyceride, blood glucose, blood pressure*

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## ABSTRAK

### Latar Belakang

Penyakit kardiovaskuler merupakan penyebab kematian utama. Kejadian sindrom metabolik berkaitan dengan terjadinya penyakit kardiovaskuler. Peningkatan sindrom metabolik sejalan dengan peningkatan obesitas sentral sehingga lingkaran pinggang dapat digunakan sebagai indikator sindrom metabolik.

### Tujuan

Menganalisis hubungan antara lingkaran pinggang dengan beberapa faktor risiko sindrom metabolik.

### Metode

Penelitian ini dilakukan dengan menggunakan desain *cross sectional*. Pengambilan sampel dilakukan dengan *consecutive sampling* dan di dapatkan jumlah sampel 36 subyek. Pengumpulan data karakteristik subyek, aktifitas fisik, dan konsumsi makanan dengan wawancara sedangkan lingkaran pinggang menggunakan pita ukur. Data tinggi badan dan berat badan menggunakan mikrotua dan timbangan injak digital. Selain itu, juga dilakukan pengambilan darah untuk pengukuran profil lipid dan kadar glukosa puasa, sedangkan tekanan darah menggunakan *sphygmomanometer*.

### Hasil

Pada penelitian ini terdapat satu subyek menderita sindrom metabolik. Selain itu juga terdapat 11,1% subyek memiliki kadar glukosa puasa yang tinggi, 11,1% subyek memiliki kadar trigliserida tinggi, 5,9% kadar kolesterol HDL subjek rendah, 19,4% tekanan darah diastolik subjek tinggi, serta 27,8% tekanan darah sistolik subjek tinggi. Terdapat hubungan lingkaran pinggang dengan tekanan darah sistolik dan diastolik setelah dikontrol variabel perancu.

### Kesimpulan

Terdapat 75% subyek dikategorikan obesitas sentral dan satu subyek menderita sindrom metabolik. Terdapat hubungan lingkaran pinggang dengan tekanan darah sistolik dan diastolik setelah dikontrol variabel perancu.

**Kata Kunci** : lingkaran pinggang, kolesterol HDL, trigliserida, glukosa darah puasa, tekanan darah

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