

**FAKULTAS KEDOKTERAN
UNIVERSITAS PEMBANGUNAN NASIONAL “VETERAN” JAKARTA**

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**HUBUNGAN *WAIST TO HEIGHT RATIO* TERHADAP KARAKTERISTIK
VASKULAR PADA MAHASISWA LAKI-LAKI DENGAN INDEKS MASSA TUBUH
NORMAL**

RINCIAN HALAMAN (xvii + 96 halaman, 15 tabel, 3 bagan, 8 gambar, 11 lampiran)

ABSTRAK

Tujuan

Cardiovascular Disease (CVD) merupakan penyebab utama kematian global. Mahasiswa kedokteran laki-laki memiliki kerentanan tinggi terhadap risiko CVD akibat beban akademik tinggi dan profil hormonal. Meskipun Indeks Massa Tubuh (IMT) umum digunakan untuk menilai status gizi, parameter ini tidak mampu mendeteksi *normal weight obesity* yang berisiko pada kesehatan vaskular. Penelitian ini bertujuan untuk menganalisis hubungan *Waist to Height Ratio* (WHtR) terhadap karakteristik vaskular pada mahasiswa Laki-laki dengan Indeks Massa Tubuh Normal.

Metode

Penelitian ini menggunakan desain *cross-sectional* dan teknik *random sampling*. Data karakteristik sampel diambil menggunakan kuesioner, sedangkan WHtR diukur menggunakan pita lingkar pinggang dan *microtoise*, sedangkan karakteristik vaskular diukur menggunakan *accelerated photoplethysmograph (APG) analyzer, SA-3000P*. Subjek terdiri dari 49 mahasiswa laki-laki, berusia 18-22 tahun, dengan IMT normal, kategori aktivitas fisik ringan atau sedang, dan kualitas tidur baik.

Hasil

Hasil uji Chi-square tidak menunjukkan hubungan signifikan antara WHtR dengan karakteristik vaskular. Namun, terdapat kecenderungan proporsi *aging index*, *arterial elasticity*, dan *peripheral elasticity* suboptimal, dan *wave type level 2* lebih tinggi pada kelompok dengan WHtR risiko tinggi dibandingkan dengan WHtR normal, meskipun perbedaan ini tidak signifikan secara statistik ($p = 0,291$; $p = 0,742$; $p = 0,062$; $p = 0,648$).

Kesimpulan

Mahasiswa dengan WHtR tinggi disarankan untuk menerapkan pola hidup sehat, antara lain olahraga secara teratur dan diet sehat sebagai upaya untuk menjaga kesehatan vaskular.

Daftar Pustaka : 84

Kata kunci : *Aging index, Arterial Elasticity, Peripheral Elaticity, Wave Type, WHtR*

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THE ASSOCIATION BETWEEN WAIST-TO-HEIGHT RATIO AND VASCULAR CHARACTERISTICS IN MALE STUDENTS WITH NORMAL BODY MASS INDEX

PAGE DETAIL (xvii + 96 pages, 15 tables, 3 chart, 8 pictures, 11 appendices)

ABSTRACT

Objective

Cardiovascular Disease (CVD) remains the leading cause of global mortality. Male medical students exhibit high vulnerability to CVD risk due to high academic burden and hormonal profiles. Although Body Mass Index (BMI) is commonly used to assess nutritional status, it fails to detect normal weight obesity, which poses a significant risk to vascular health. This study aims to analyze the relationship between Waist to Height Ratio (WHtR) and vascular characteristics in male students with normal BMI.

Method

This study employed a cross-sectional design with a total sampling technique. Sample characteristic were collected via questionnaires. WHtR determined by measuring waist circumference and height using a measuring tape and microtoise, respectively. Vascular characteristics were measured using an accelerated photoplethysmograph (APG) analyzer, SA-3000P. The subjects consisted of 49 male students, aged 18-22 years, with "normal" BMI, "light" or "moderate" physical activity levels, and "good" sleep quality.

Result

Chi-square test results showed no significant relationship between WHtR and vascular characteristic ($p > 0.05$). However, there was a tendency for suboptimal proportions of aging index, arterial elasticity, and peripheral elasticity, and a higher wave type level 2 in the high-risk WHtR group compared to the normal WHtR group, although these differences were not statistically significant ($p = 0.291$; $p = 0.742$; $p = 0.062$; $p = 0.648$).

Conclusion

Students with high-risk WHtR are advised to adopt a healthy lifestyle to maintain a normal WHtR as a preventive measure for vascular health.

Reference : 84

Keyword : aging index, arterial elasticity, peripheral elasticity, male student, WHtR