Visceral Adiposity Index Sebagai Prediktor Diabetes Mellitus Tipe 2: Analisis Data Kohort Penyakit Tidak Menular Bogor Tahun 2011-2016 = Visceral Adiposity Index as a Predictor of Type 2 Diabetes Incidence: Cohort Study on Non-Communicable Diseases in Bogor City 2011-2016

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Abstrak

ABSTRAK
Penelitian yang ada memperlihatkan bahwa lemak visceral memiliki peran yang lebih penting dibandingkan lemak subkutan dalam patogenesis resistensi insulin dan Diabetes Melitus Tipe 2 (DMT2). Visceral Adiposity Index (VAI) merupakan rumus yang dikembangkan untuk mengestimasi akumulasi lemak visceral pada populasi Kaukasia dan memiliki nilai prediksi yang baik terhadap kejadian DMT2. Tujuan. Untuk mengetahui apakah VAI dapat digunakan sebagai prediktor DMT2 pada populasi Indonesia. Metode. Penelitian ini merupakan studi Kohort retrospektif, menggunakan data sekunder dari Studi Kohort PTM Litbangkes di Bogor tahun 2011-2016. Subyek dengan usia 25-65 tahun yang tidak menderita DMT2 di awal penelitian diobservasi. Insiden DMT2 baru dicatat, Uji Hipotesis yang dilakukan adalah uji cox regression multivariat. Analisis statistik dipisah berdasarkan gender. Hasil. Subyek yang terinklusi penelitian 2852 orang (834 pria dan 2018 wanita). Didapatkan 149 kejadian DMT2 baru dalam observasi. Analisis multivariat VAI kuartil 4 merupakan prediktor independen terhadap kejadian DMT2 (HRadj Pria : 3,592 (1,34-9,6; p 0,001); Wanita: 2,95 (1,24-5,69; p 0,008)) dengan Attributable risk laki-laki AR: 74/1000; AR%: 75% dan perempuan AR: 65/1000; AR%: 72%. Kesimpulan. Visceral Adiposity Index (VAI) merupakan prediktor independen terhadap kejadian DMT2 pada populasi di Indonesia.
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<i>ABSTRACT
It has been reported that visceral fat plays a relatively more significant part in the progression to type 2 diabetes (T2DM) than subcutaneous fat. Visceral Adiposity Index (VAI) is an equation model developed in Caucasian to estimate visceral fat accumulation, and has been reported to better predict the development of T2DM. Objective. To assessed whether VAI can be used as a predictor of T2DM in Indonesian population. Method. We analysed a secondary data from the Bogor Non-communicable Diseases Cohort Study 2011-2016 which involved participants aged 25-65 years old without T2DM at baseline. Newly occurred diabetes were observed. DMT2 is define as having fasting plasma glucose ≥126 mg/dL, and or 2 hours post prandial blood glucose ≥ 200 mg/dL, or was diagnosed as DMT2 by a healthcare professionals. The role of VAI as the predictor for T2DM was analysed using Multivariate Cox regression. Result. We observed 2852 subjects (834 male and 2018 female). A total number of new DMT2 case were 149. Multivariate analysis shown that 4th quartile of VAI were independent predictor to DMT2 incidence (HRadj

Male: 3,592 (1,34-9,6; p 0,001); Female: 2,95 (1,24-5,69; p 0,008)) with attributable risk within male population AR: 74/1000; AR%: 75% and female AR: 65/1000; AR%: 72% respectively. Conclusion. VAI is an independent predictor for T2DM in Indonesian population.