

## HUBUNGAN *SEDENTARY ACTIVITY*, RIWAYAT *DIABETES MELLITUS*, DISLIPIDEMIA DAN OBESITAS KELUARGA SERTA ASUPAN KARBOHIDRAT SEDERHANA DENGAN PENINGKATAN LEVEL TRIGLISERIDA REMAJA SMA KOTA YOGYAKARTA

### INTISARI

**Latar Belakang.** Hipertrigliseridemia, meskipun jarang dijumpai di usia muda, bukan tidak mungkin mengalami peningkatan karena peningkatan obesitas. Bahkan telah ada beberapa bukti menunjukkan hipertrigliseridemia sekunder, terkait gaya hidup, terjadi di usia muda. Padahal kenaikan level trigliserida merupakan faktor risiko independen dengan kejadian aterosklerosis, yang di inisiasi pada usia muda.

**Tujuan Penelitian.** Mengetahui faktor risiko yang berkaitan dengan peningkatan level trigliserida pada remaja SMA Kota Yogyakarta.

**Metode Penelitian.** Desain penelitian berupa kasus kontrol dengan sampel dari penelitian sebelumnya di SMA Kota Yogyakarta. Jumlah sampel sebanyak 51 pasang, di mana pengambilan kasus menggunakan *total sampling* sedangkan kontrol *consecutive sampling*. Variabel *sedentary activity* diambil menggunakan *Physical Activity Questionnaire-Children* (PAQ-C) modifikasi sesuai aktivitas remaja, variabel asupan karbohidrat sederhana *Semi-Quantitative Food Frequencies Questionnaire* (SQ-FFQ) yang telah diambil pada penelitian sebelumnya. Uji statistik yang digunakan yaitu *Mann-Whitney Test* dan *Independent-Sample t Test* untuk menguji perbedaan antar dua kelompok bergantung normalitas data. Uji hipotesis menggunakan *chi-square* dan dilihat nilai *odds ratio*-nya dengan tingkat kepercayaan 95%.

**Hasil Penelitian.** Dari semua variabel karakteristik hanya status gizi yang menunjukkan signifikansi baik ketika dilakukan uji *Mann-Whitney* dengan nilai  $p = 0,000$  ( $p < 0,05$ ) maupun uji *chi-square* dengan nilai  $p = 0,000$  ( $p < 0,05$ ) antar dua kelompok. *Overweight* dan obes memiliki *odds ratio* 4,8 (95% IK: 1,99-11,95) untuk mengalami peningkatan trigliserida dibanding status gizi normal. Sedangkan dari variabel utama baik *sedentary activity*, riwayat keluarga dan asupan KH sederhana tidak menunjukkan adanya perbedaan antar dua kelompok dan menunjukkan hubungan signifikan ( $p > 0,05$ ). Nilai  $p$  variabel *total sedentary* 0,692, *screen time* 0,428 dan *sitting time* 0,322. Nilai  $p$  riwayat DM keluarga 0,689, riwayat dislipidemia keluarga 0,882 dan riwayat obesitas keluarga 1,000. Nilai  $p$  asupan KH sederhana 0,230.

**Kesimpulan.** *Sedentary activity*, riwayat keluarga dan asupan KH sederhana bukanlah faktor risiko peningkatan level trigliserida pada penelitian ini.

**Kata Kunci.** *Sedentary activity*, riwayat keluarga, asupan KH sederhana, trigliserida.

**THE RELATIONSHIP BETWEEN SEDENTARY ACTIVITY, FAMILY HISTORY OF DIBETES MELLITUS, DYSLIPIDEMIA AND OBESITY AND SIMPLE CARBOHYDRATE INTAKE WITH ELEVATED TRIGLYCERIDES LEVEL IN SENIOR HIGH SCHOOL ADOLESCENT AT YOGYAKARTA CITY**

**ABSTRACK**

**Background.** *Hypertriglyceridemia, although its rare to be find in young age, its not imposible to become greater due to the increase obesity. There has been some evidence proof secondary hypertriglyceridemia, a lifestyle related, occurs at a young age. Where it is known as independent risk factor to atherosclerosis, initiated in young age.*

**Objective.** *To identify related factor of elevated triglycerides in senior high school adolescent at Yogyakarta City.*

**Method.** *A case control study with sample from previous study in senior high school adolescent at Yogyakarta City. Fifty one paired sample participated in this study with total sampling method for cases and consecutive sampling for control. Sedentary activity data were collected by modified Physical Activity Questionnaire for Children (PAQ-C) and simple carbohydrate intake by Semi Quantitative Food Frequencies Questionnaire (SQ-FFQ) which has taken previously. Mann-Whitney Test and Independent-Sample t Test were used to know the differencies from two group depending on normality of data. Chi-square and odds ratio with 95% confidence interval were used to hypothesis test.*

**Result.** *Significant relation ( $p < 0,05$ ) of Mann-Whitney and chi-square only was found at nutritional state variable (both test  $p=0,000$ ) from all based data between two group. Odds ratio overweight and obesity were 4,8 (95% CI:1,99-11,95) to have greater level of triglycerides than in normal weight. Sedentary activity, family history and simple carbohydrate intake have no significant relation ( $p > 0,05$ ) in Chi-square Test as no significant differencies in Mann-Whitney Test. P value of total sedentary was 0,692, screen time was 0,428 and sitting time was 0,322. P value of familial history of diabetes mellitus was 0,689, dylipidemia was 0,882 and obesity was 1,000. P value of simple carbohydrate intake was 0,230.*

**Conclusion.** *Sedentary activity, family history and simple carbohydrate intake were not risk factor of elevated triglycerides level in this study.*

**Key Word.** *Sedentary activity, family history, simple carbohydrate intake, triglyceride.*