

Faktor determinan kadar estradiol dan menarche dini pada remaja putri usia 13-15 tahun di Jakarta studi epidemiologi gizi terkait faktor risiko kanker payudara = Determinants of estradiol level and early menarche among adolescent girls aged 13-15 years in Jakarta a nutritional epidemiologic study associated with breast cancer risk

Ririn Hariani, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20423680&lokasi=lokal>

Abstrak

Menarche dini merupakan salah satu faktor risiko kanker payudara yang berhubungan dengan lama pajanan estrogen. Penelitian mengenai faktor-faktor risiko menarche dini belum banyak dilakukan. Penelitian ini bertujuan untuk mengetahui hubungan antara asupan gizi, antropometri dan komposisi tubuh, serta aktivitas fisik dengan kadar estradiol dan menarche dini. Desain penelitian ini adalah potong lintang dengan subjek remaja putri 13-15 tahun di Jakarta, sejak Januari 2014 sampai Januari 2015. Analisis asupan gizi dilakukan dengan metode 24-hour recall dan Food Frequency Questionnaires (FFQ) semikuantitatif. Variabel antropometrik dan komposisi tubuh meliputi berat badan, tinggi badan, indeks massa tubuh (IMT), dan persentase lemak tubuh. Namun ditambahkan pengukuran lingkaran lengan atas (LLA) dan lingkaran pinggang (LP). Aktivitas fisik dinilai dengan Physical Activity Questionnaire (PAQ). Kadar estradiol serum diukur pada fase folikuler. Menarche dini adalah usia saat menstruasi pertama kali kurang dari 12 tahun. Terdapat 189 remaja putri usia 13-15 tahun yang dilibatkan dari 8 SMP di Jakarta. Asupan gizi remaja putri berdasarkan PUGS cukup karbohidrat, kurang protein, tinggi lemak, dan rendah serat.

Berdasarkan kriteria z-score IMT/U dari WHO, ditemukan sebanyak 3,2% gizi kurang, 73,5% normal, 18% mengalami overweight dan 5,3% mengalami obese. Lebih dari 90% subjek penelitian memiliki aktivitas fisik rendah. Proporsi menarche dini pada penelitian ini 22,8%. Kadar estradiol berkorelasi positif dengan asupan energi, protein, dan lemak. Berdasarkan kategori asupan, median estradiol berhubungan dengan asupan karbohidrat dan lemak. Terdapat korelasi negatif antara kadar estradiol dan LLA, LP serta z-score IMT/U. Terdapat hubungan antara menarche dini dan variabel-variabel antropometrik LLA dan LP serta z-score IMT/U. Tidak terdapat hubungan antara menarche dini, asupan gizi, aktivitas fisik, dan kadar estradiol. Faktor determinan kadar estradiol adalah asupan energi, protein, lemak dan zscore IMT/U, sedangkan faktor determinan menarche dini adalah LP. Dari hasil penelitian disimpulkan bahwa untuk menurunkan faktor risiko kanker payudara, perlu memperhatikan faktor-faktor yang terkait kadar estradiol dan menarche.

.....Early menarche has been known as a risk factor of breast cancer because its association with the length of exposure time to estrogen. There are not much studies has been done on risk factors of early menarche. The aim of this study was to know the association among nutritional intake, anthropometry and body composition, physical activity, estradiol level and early menarche. This was a cross-sectional study involving adolescent girls aged 13-15 years in Jakarta, between January 2014 and January 2015. Interview on nutritional intakes were done by using the 24-hour recall and semiquantitative Food Frequency Questionnaires (FFQ). The anthropometric and body composition variables included body weight, body height, body mass index (BMI) and body fat percentage; however, additional variables were also measured, i.e. mid-upper arm circumference (MUAC) and waist circumference (WC). Physical activity was assessed

by using the Physical Activity Questionnaires (PAQ). Serum estradiol levels were measured during follicular phase. Early menarche was defined if the first menstruation occurred before the age of 12 years. There were 189 adolescent girls enrolled in this study from 8 junior high schools in Jakarta.

Based on guidelines of balanced nutrition, nutritional intake of adolescent girls were adequate carbohydrate intake, low protein intake, high fat intake, and low fiber intake. based on the WHO z-scores of BMI per age, there was 3,2% underweight, 73,5% normal, 18% overweight and 5,3% obese subjects. More than 90% of the study subjects had mild physical activity. The proportion of early menarche was 22.8%. Estradiol level was positive correlated with the intakes of energy, protein, and fat. Based on the diet intake category, median estradiol level was associate with the intakes of carbohydrate and fat. There was a negative correlation between estradiol level and MUAC, WC, and z-scores BMI per age. There was an association between early menarche and anthropometric measures (MUAC and WC) and z-scores BMI per age. No association was found between early menarche and nutritional intake, physical activity, or estradiol level. Determinant factors of estradiol level were the intakes of energy, protein, fat, and z-score BMI per age; while determinant factor of early menarche was waist circumference. To conclude, in order to reduce breast cancer risk, we should paid attention on factors associated with increased estradiol level and early menarche i.e. fat intake, physical acitivity and normal body weight.