Hubungan hormon anti-mullerian serum dan resistensi insulin terhadap fenotip sindrom polikistik ovarium = The relationship between polycystic ovary syndrome phenotype and insulin resistance with serum anti-mullerian hormone amh level

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Abstrak

ABSTRAK
 Latar Belakang: Sindroma ovarium polikistik (SOPK) merupakan kelainan kompleks endokrin terbanyak pada usia reproduksi. Ketidakseimbangan hormon merupakan salah satu temuan SOPK yang terkait dengan patofisiologinya. Adanya perbedaan kejadian resistensi insulin mungkin terkait dengan perbedaan karakteristik hormon pada pasien SOPK pada berbagai fenotipe, salah satunya Hormon Anti-Mullerian (HAM).
Metode: Desain penelitian potong lintang (cross sectional), pengambilan subjek dimulai dari identifikasi kelompok dengan SOPK menggunakan titik potong HAM >4,45 ng/dl, lalu akan dikelompokkan menjadi empat kelompok sesuai dengan fenotipnya berdasarkan kriteria Rotterdam 2003, di klinik Yasmin dan Makmal Endokrinologi di bagian Obstetri dan Ginekologi RSUPN Dr.Cipto Mangunkusumo selama tahun 2011 ?2014. Resistensi insulin dinilai menggunakan homeostatic model assessment for insulin resistance (HOMA IR).
Hasil: Didapatkan 125 subjek SOPK dengan kadar HAM cenderung lebih tinggi pada fenotipe 1 dan lebih rendah pada fenotipe 4 (p<0,05). Selain itu, ditemukan perbedaan kadar LH dan rasio LH/FSH pada keempat fenotipe (p<0,05). Nilai HOMA IR juga lebih tinggi pada fenotipe 1 (p<0,05). Berdasarkan analisis regresi linear, didapatkan indeks massa tubuh dan HAM berkorelasi positif dengan nilai HOMA IR (r=0,19 p=0,015 dan r=0,53 p<0,001, berturut-turut).
Kesimpulan: Terdapat korelasi positif kadar HAM terhadap nilai HOMA IR. Pada keempat fenotipe SOPK didapatkan kadar HAM dan HOMA IR lebih tinggi pada fenotipe 1 dan semakin rendah pada fenotipe 4. ABSTRACT Background: Polycystic ovary syndrome (PCOS) is an endocrine disorder that is the most complex in the reproductive age. Hormonal imbalance remains a part of its pathophysiology. Insulin resistance might be linked with difference in hormonal parameter across four phenotypes of PCOS, especillay in AMH level.

Method: The study design was cross-sectional (cross-sectional). Subject retrieval starts from the identification of the group with PCOS (with cutt-off AMH serum >4.45 ng/dl), and will be grouped into four groups according to their phenotype based on the criteria of Rotterdam in 2003, in the clinic Yasmin and Endocrinology Laboratory at the Obstetrics and Gynecology RSUPN Dr.Cipto Mangunkusomo during 2011 -2014. Insulin resistance was counted using

homeostatic model assessment for insulin resistance (HOMA IR).

Result: A total of 125 PCOS patients were recruited with AMH serum significantly higher among phenotype 1 and lower among phenotype 4 ($p<0.05$). Besides, Lh serum and LH/FSH ratio were also different across four phenotypes ($p<0.05$). The value of HOMA IR tend to be higher among phenotype 1 ($p<0.05$). Using multivariable linear regression analysis, body mass index and AMH serum were positively correlated with HOMA IR ($r=0.19$ $p=0.015$ and $r=0.53$ $p<0.001$, respectively).

Conclusion: There was a positive correlation between AMH serum and HOMA IR value. The four PCOS phenotypes had significantly different value of HAM serum and HOMA IR with phenotype 1 possed higher value among the others. ;Background: Polycystic ovary syndrome (PCOS) is an endocrine disorder that is the most complex in the reproductive age. Hormonal imbalance remains a part of its pathophysiology. Insulin resistance might be linked with difference in hormonal parameter across four phenotypes of PCOS, especillay in AMH level.

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