Perbandingan antara kadar homosistein darah dan zalir folikel pada wanita infertil dengan dan tanpa endometriosis dan hubungannya dengan mutu oosit = Comparison homocysteine levels between blood and follicular fluid in infertile women with and without endometriosis and its relationship to quality oocytes

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Abstrak

Tujuan : Membandingkan dan menentukan perbedaan kadar homosistein dalam darah dan zalir folikel pada wanita infertil dengan dan tanpa endometriosis, kemudian menganalisis pengaruh kadar homosistein tersebut dengan mutu oosit.
Metode : Penelitian ini merupakan penelitian potong lintang (cross sectional). Lima puluh sembilan subjek mengikuti program fertilisasi in-vitro yang masuk dalam kriteria penerimaan dibagi menjadi dua kelompok sama besar, yakni
kelompok endometriosis dan tanpa endometriosis secara konsekutif (consecutive sampling). Masing-masing subjek diambil percontoh dari darah dan zalir folikel kemudian diukur kadar homosisteinnya dengan metode teraimun CMIA. Rerata masing-masing kelompok diuji statistik dengan uji t independen.
Hasil : Rerata kadar homosistein dalam darah pada kelompok endometriosis lebih tinggi dibandingkan dengan tanpa endometriosis dan secara statisik berbeda bermakna (8,34 ±2,68 vs 6,71 ±1,56, p=0.007;95%CI: 0,02417-0,14657).
Demikian pula dengan kadar homosistein dalam zalir folikel, kelompok endometriosis lebih tinggi dan secara statistik berbeda bermakna (6,19 ±1,67 vs 3,46 ±1,03; p= 0,000; 95% CI : 0,19310-0,32353). Semua mutu oosit baik pada
kedua kelompok, yakni derajat 3. Terdapat korelasi antara kadar homosistein di dalam darah dan zalir folikel pada kelompok endometriosis dan dinilai dengan uji Pearson didapatkan bermakna (p = 0,002) dan nilai korelasi 0,553 (kekuatan korelasi sedang) dan arah korelasi positif.
Kesimpulan : Rerata kadar homosistein dalam darah dan zalir folikel pada wanita infertil dengan endometriosis lebih tinggi dibandingkan dengan tanpa endometriosis dan secara statistik berbeda bermakna. Kadar homosistein ini tidak
berpengaruh terhadap mutu oosit. Terdapat korelasi positif antara kadar homosistein dalam darah dan zalir folikel pada kelompok endometriosis.
.....Purpose : Compare and determine the differences in levels of homocysteine in
the blood and follicular fluid in infertile women with and without endometriosis, then analyze the effect of homocysteine levels with oocyte quality.
Method : This study was cross-sectional study. Fifty-nine subjects following the
in-vitro fertilization program are included in the admission criteria were divided into two equal groups, ie groups of endometriosis and without endometriosis consecutively (consecutive sampling). Each subject taken from the blood and follicular fluid then measured the levels of homocystein levels with immuoassay method : The mean of each group was statistically tested with an independent t
test.

Results : The mean levels of homocysteine in the blood is higher in the endometriosis group than without endometriosis group and it was statisticaly significance (8,34 ±2,68 vs 6,71 ±1,56, p=0.007;95%CI: 0,02417-0,14657).
Similarly, the levels of homocysteine in follicular fluid , the endometriosis group
is higher and statisticaly significance (6,19 ±1,67 vs 3,46 ±1,03; p= 0,000; 95% CI : 0,19310-0,32353). All oocytes are in good quality in both groups, maturation grade 3. There is a correlation between the levels of homocysteine in the blood and follicular fluid in the endometriosis group and assessed with Pearson test, and it found significant (p = 0.002) and the correlation value 0.553 (moderate correlation strength) and direction of a positive correlation.
Conclusion : The mean levels of homocysteine in the blood and follicular fluid in infertile women with endometriosis is higher than without endometriosis and were statistically significantly different. These homocysteine levels does not affect the quality of oocytes. There is a positive correlation between the levels of homocysteine in the blood and follicular fluid in endometriosis group.