Profil serum petanda biologik : Interleukin-6, Tumor Necrosis Factor-alpha, Matrix Metalloproteinase-2 dan Vascular Endothelial Growth Factor pada berbagai derajat Endometriosis = The serum biomarkers profiles of Interleukin-6, Tumor Necrosis Factor-alpha, Matrix Metalloproteinase-2 and Vascular Endothelial Growth Factor in Endometriosis staging

Sandhy Prayudhana, author

Abstrak

Tujuan : Penelitian ini bertujuan membandingkan kadar serum petanda biologik: Interleukin-6, Tumor Necrosis Factor-alpha, Matrix-Metalloproteinase-2 Dan Vascular Endothelial Growth Factor pada endometriosis stadium I-II dan stadium III-IV.

Metode : Empat puluh pasien endometriosis yang terdiagnosis berdasarkan laparoskopi diambil sampel serum sebelum operasi untuk pemeriksaan petanda biologik. Pemeriksaan petanda biologik dilakukan di akhir penelitian dengan cara ELISA. Rerata dari kadar serum dilakukan uji T tidak berpasangan. Variabel yang terdapat perbedaan bermakna dilakukan pemeriksaan ROC dan ditentukan titik potong optimal.

Hasil : Rerata kadar serum petanda biologik: IL-6, TNF-a, MMP-2 dan VEGF pada subjek dengan stadium endometriosis I-II dan III-IV adalah [1,39 vs 1,33] pg/ml (p>0,05); [1,5 ±0,47 vs 1,49±0,29] pg/ml (p>0,05); [152,04 ± 27,32 vs 140,98 ± 28,08] ng/ml (p>0,05) dan [238,78 vs 426,57] pg/ml (p<0,05). Perbedaan rerata VEGF memiliki nilai AUC 74,5%. Titik potong optimal VEGF 323,95 pg/ml dengan sensitivitas 71,4% dan spesifisitas 69,2%.

Kesimpulan : Kadar serum IL-6, TNF-a dan MMP-2 tidak berbeda bermakna pada perempuan endometriosis stadium I-II dan stadium III-IV. Hanya kadar VEGF yang memiliki perbedaan rerata yang bermakna.
<hr><i>Purpose : The focus of this study is to compare serum biomarkers of : interleukin-6, tumor necrosis factor-alpha, matrix-metalloproteinase-2 and vascular endothelial growth factor in endometriosis stage I-II and stage III-IV.

Method : Forty endometriosis patient was diagnosed by laparoscopy. Serum sample was taken before the surgery. The serum biomarkers were analyzed with ELISA method at the end of research. Mean of serum biomarkers were tested with unpaired T test. Variable that had significant mean different was thorough ROC measurement and determined the optimal cut of point.

Result : Mean serum biomarkers level of IL-6, TNF-a, MMP-2 and VEGF of endometriosis stage I-II and stage III-IV were [1,39 vs 1,33] pg/ml (p>0,05); [1,5 ±0,47 vs 1,49±0,29] pg/ml (p>0,05); [152,04 ± 27,32 vs 140,98 ± 28,08] ng/ml (p>0,05) and [238,78 vs 426,57] pg/ml (p<0,05). Mean different of VEGF have AUC 74,5%. Optimal cut of point for VEGF 323,95 pg/ml with sensitivity 71,4% and spesificity 69,2%.

Conclusion : Mean serum level of IL-6, TNF-a and MMP-2 are not different between endometriosis stage I-II and stage III-IV. Only VEGF has significant mean different.</i>