Peningkatan sel T CD4 , CD8 dan Sel B CD19 darah tepi istri pasangan infertil tidak terjelaskan pasca stimulasi dengan sel darah tepi suami = Increasing of CD4 CD8 T cells and CD19 B cell peripheral blood from wife of unexplained infertile couple stimulated with peripheral blood husband / Dianing Amalia S. Roesyanto

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Abstrak

ABSTRAK
Latar Belakang. Gangguan kesuburan merupakan masalah kesehatan reproduksi di dunia yang terjadi pada 10-15% pasangan suami istri. Salah satu penyebab gangguan kesuburan atau infertilitas yang dialami pasangan suami istri adalah yang penyebabnya tidak terjelaskan (unexplained). Dikatakan infertil tidak terjelaskan karena pada semua pemeriksaan standar pasangan suami istri termasuk tes ovulasi, patensi tuba dan analisis sperma berada dalam keadaan normal. Sebagian besar masalah infertil tidak terjelaskan dikaitkan dengan gangguan imunologi yang terjadi antara suami istri, dengan adanya perubahan atau pergeseran proporsi subpopulasi limfosit sebagai indikator.
Metode. Dilakukan pengambilan sampel darah tepi dan pemisahan sel mononukleus pasangan infertil tidak terjelaskan. Sebelum dilakukan MLR (Mixed Lymphocyte Reaction) sel mononukleus suami istri, dilakukan pemeriksaan typing sel T CD4+, CD8+ dan sel B CD19+ sel mononukleus istri. Sebelum kultur MLR, sel mononukleus suami diinkubasi dengan Mitomycin C. Kultur MLR sel mononukleus suami dan istri selama 72 jam. Dilakukan typing sel T CD4+, CD8+ dan sel B CD19+ sel mononukleus istri setelah kultur. Hasilnya dibandingkan dengan istri pasangan fertil.
Hasil. Dari 15 pasangan infertil tidak terjelaskan dan 6 pasangan fertil, tidak terdapat perbedaan bermakna pada rentang usia istri kedua kelompok (p = 0,078). Peningkatan nilai rerata populasi sel T CD4+, CD8+ dan sel B CD19+ sesudah kultur MLR lebih tinggi pada istri pasangan infertil tidak terjelaskan dibandingkan istri pasangan fertil, meskipun secara statistik tidak terdapat perbedaan bermakna (p = 0,223, p = 0,126, p = 0,462). Proporsi peningkatan proliferasi sel T CD4+, CD8+ sesudah kultur MLR pada istri pasangan infertil tidak terjelaskan berbeda bermakna dibandingkan dengan istri pasangan fertil (p = 0,044 dan p = 0,003). Hasil penelitian ini menguatkan dugaan adanya peran imunologi pada sebagian pasangan infertil tidak terjelaskan.
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ABSTRACT
Background. Infertility is a world reproductive health problem which is occured in 10-15% of the couples. One of the reason of this infertility problem is unexplained. Diagnosis of unexplained infertility is made when all of the basic evaluation including ovulation test, tubal patency and normal sperm analysis are established. The potential cause of unexplained infertility has been described mostly as an immunology problem, whereas there is a change or modulation of lymphocyte subpopulation proportion as an indicator.
Method. Peripheral blood and lymphocyte isolation were collected from unexplained infertile couples and fertile couples. Immunotyping of CD4+, CD8+ T cells and CD19+ B cell from wife?s lymphocyte of both group were measured before the mixed lymphocyte reaction (MLR). Before MLR, the husband?s

lymphocytes were incubated with Mitomycin C. The MLR between husband and wife?s lymphocytes were cultured for 72 hours. Immunotyping of CD4+, CD8+ T cells and CD19+ B cell after cultured and compared between unexplained infertile couples and controls.
Results. From 15 unexplained infertile couples and 6 fertile couples, there were no statistical different in the age ranges between the wife of both group (p = 0,078). The mean number population of CD4+, CD8+ T cells and CD19+ B cell after MLR cultured were higher from the wife of unexplained infertile group compared to the wife of fertile group, but there were no statistical different between them (p = 0,223, p = 0,126, p = 0,462). Increased proportion of CD4+, CD8+ T cells proliferation after MLR cultured from the wife of unexplained infertile couple were significantly different compared to the wife of fertile group (p = 0,044 and p = 0,003). This results suggested that there is a tendency for immunological factor involvement in the pathogenesis of partially unexplained infertility couples