PENELITIAN

Pemeriksaan RT-PCR pada Granuloma *Well Organized* dan
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Majalah **Patologi**

Pemeriksaan *Real Time-Polymerase Chain Reaction* (RT-PCR) pada Granuloma *Well Organized* dan *Poorly Organized* Limfadenitis Tuberkulosis

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ABSTRAK

Latarbelakang
Limfadenitis tuberkulosis (LTB) merupakan tuberkulosis ekstra paru yang paling sering terjadi. Diagnosis histopatologik ditegakkan apabila ditemukan tuberkel atau granuloma dengan nekrosis perkijuan. Granuloma dibedakan menjadi granuloma *well organized* (GWO) dan granuloma *poorly organized* (GPO). GWO terdiri atas nekrosis perkijuan dengan granuloma yang terdiri atas sel epitelioid, sel datia Langhans, sel datia benda asing dan daerah mantel berupa limfosit dan fibrosis. GPO terdiri atas nekrosis yang disertai debris inti dan sel radang PMN, bagian mantel berbatas tidak tegas disertai histiosit epitelioid, limfosit dan sel plasma, kadang-kadang PMN, hanya sedikit atau tanpa sel datia dan fibrosis. Pembentukan granuloma dapat juga ditemukan pada kasus-kasus limfadenitis yang bukan disebabkan oleh *Mycobacterium tuberculosis*, terutama granuloma jenis GPO. Tujuan penelitian ini adalah untuk mengetahui etiologi dari gambaran histopatologi GWO dan GPO berdasarkan pemeriksaan RT-PCR.

Metode
Penelitian ini menggunakan 30 sampel preparat dan blok parafin yang sebelumnya telah didiagnosis sebagai LTB secara histopatologi dengan pewarnaan hematoksilin eosin (HE), 15 sampel dengan gambaran histopato-logi GWO dan 15 sampel lainnya dengan gambaran histopatologi GPO. Seluruh sampel dilakukan pemeriksaan RT-PCR untuk menentukan etiologi dari gambaran histopatologi GWO dan GPO dan untuk mengetahui apakah terdapat perbedaan hasil pemeriksaan RT-PCR pada gambaran histopatologi GWO dan GPO.

Hasil
Dari 15 sampel sediaan dengan gambaran histopatologi GWO didapatkan 10 (67%) kasus dengan hasil RT-PCR positif tuberkulosis dan 5 (33%) kasus dengan hasil RT-PCR negatif tuberkulosis. Sedangkan 15 sampel sediaan dengan gambaran histopatologi GPO didapatkan 8 (53%) dengan hasil RT-PCR positif tuberkulosis dan 7 (47%) dengan hasil RT-PCR negatif tuberkulosis. Analisis hasil pemeriksaan RT-PCR untuk menentukan etiologi pada gambaran GWO dan GPO tidak ditemukan perbedaan yang bermakna (p>0,05).

Kesimpulan
Tidak terdapat perbedaan hasil pemeriksaan RT-PCR pada kasus dengan gambaran histopatologi GWO dan GPO.

Kata kunci : granuloma *poorly organized*, granuloma *well organized*, limfadenitis tuberkulosis, RT-PCR.

ABSTRACT

Introduction
Tuberculous lymphadenitis (TBL) was the most common form of extrapulmonary tuberculosis. The diagnose of TBL was based on the tubercle formation that consist of granuloma and caseous necrosis. There were 2 type of granuloma, well organized (WOG) and poorly organized granuloma (POG). Well organized granuloma were characterized by varying amount of eosinophilic necrosis surrounded by granuloma composed of mature epithelioid macrophages, mainly Langhans type giant cells and a mantle of lymphocytes and fibrous tissues. Poorly organized granuloma were characterized by central area of sparse coarse necrosis with nuclear debris and often polymorphonuclear granulocytes, the granuloma had an ill-defined mantle with mixed cells composed of macrophages, lymphocytes and plasma cells, only few giant cells were seen and there was little or no fibrosis. Inflamatory granuloma also can be found in non TBL, especially POG. The purpose of this study was to find out the etiology of WOG and POG based on the RT-PCR result.

Methods
This study used 30 formalin-fixed paraffin-embedded tissue blocks from patients who were histopathologically diagnosed as TBL with hematoxillin eosin (HE) staining, consist of 15 samples WOG and 15 samples POG. This study performed RT-PCR to all cases in order to find out the etiology of GWO and GPO and to know if there will be any differences in RT-PCR result between WOG and POG.

Results
Of the 15 WOG cases, 10 (67%) cases were RT-PCR positive and 5 (33%) cases were RT-PCR negative, whereas 15 cases POG consist of 8 (53%) cases were RT-PCR positive and 7 (47%) cases were RT-PCR negative. Both of cases WOG and POG was analyzed, according to the statistical analysis had found that there were no differences RT-PCR result between WOG and POG significantly (p>0.05).

Conclusion
There were no differences in RT-PCR result between histopathologic feature of WOG and POG.

Key words : poorly organized granuloma, RT-PCR, tuberculosis lymphadenitis, well organized granuloma.