



INTISARI

Latar Belakang: Reaksi lepra merupakan episode inflamasi akut pada lepra yang dapat menyebabkan kecacatan. Mayoritas reaksi lepra terjadi selama menggunakan MDT dan disebut sebagai reaksi lepra dini. Patomekanisme reaksi lepra melibatkan berbagai sitokin pro inflamasi, salah satunya adalah interleukin (IL)-6.

Tujuan: Penelitian ini bertujuan untuk mengetahui apakah ekspresi IL-6 awal yang tinggi pada jaringan kulit merupakan faktor risiko terjadinya reaksi lepra dini.

Metode: Penelitian kasus kontrol ini dilakukan pada pasien lepra di Poliklinik Kulit dan Kelamin RSUP Dr. Sardjito yang memenuhi kriteria inklusi dan eksklusi dengan menggunakan data rekam medis. Kelompok kasus (34 orang) terdiri atas pasien yang mengalami reaksi lepra dini, sedangkan kelompok kontrol (35 orang) terdiri atas pasien tanpa reaksi lepra. Setiap subjek dilakukan penelusuran blok parafin dari sampel biopsi kulit saat penegakan diagnosis dan dilakukan pengecatan imunohistokimia dengan antibodi monoklonal IL-6. Ekspresi IL-6 akan dinilai dengan program *ImageJ* dan analisis statistik dilakukan untuk mengetahui hubungannya dengan kejadian reaksi lepra dini.

Hasil: Seluruh sampel biopsi kulit mengekspresikan IL-6. Ekspresi positif ditemukan pada neutrofil, limfosit, histiosit epiteloid, sel Langerhans, dan sel plasma dalam bentuk granuloma maupun tersebar pada dermis. Nilai ekspresi IL-6 awal $\geq 30,2\%$ tidak meningkatkan risiko kejadian reaksi lepra dini.

Kesimpulan: Ekspresi IL-6 awal $\geq 30,2\%$ pada jaringan kulit bukan merupakan faktor risiko terjadinya reaksi lepra dini.

Kata kunci: *reaksi lepra, interleukin-6, biopsi kulit, imunohistokimia*



ABSTRACT

Background: Leprosy reaction is an acute inflammatory episode in leprosy which can cause disability. The majority of leprosy reaction occurs during MDT treatment and known as early leprosy reaction. The pathomechanism of leprosy reaction involves many proinflammatory cytokines, including (IL)-6.

Objective: The aim of this study was to determine whether high early IL-6 expression in the skin tissues indicates a risk factor of early leprosy reaction.

Methods: This case control study was performed on leprosy patients in Dermatology and Venereology clinic, Dr. Sardjito General Hospital who fulfilled inclusion and exclusion criteria using data from medical records. The case group consists of patients with early leprosy reaction. Meanwhile, control group consists of patients without leprosy reaction. Search on paraffin block from skin biopsy samples were performed on every subject during diagnosis establishment and immunohistochemistry staining was performed using IL-6 monoclonal antibody. IL-6 expression was assessed using ImageJ program and statistical analysis was performed to determine its correlation with early leprosy reaction.

Results: Every skin biopsy samples expressed IL-6. Positive expression was found on neutrophils, lymphocytes, epithelioid histiocytes, Langhans cells, and plasma cells in the form of granuloma or spread through dermis. The early IL-6 expression value of $\geq 30.2\%$ doesn't increases the risk of early leprosy reaction.

Conclusion and Suggestion: Early IL-6 expression of $\geq 30.2\%$ in the skin tissues is not a risk factor for early leprosy reaction.

Keywords: *Leprosy reaction, interleukin-6, skin biopsy, immunohistochemistry*