

ABSTRAK

Otitis Media Supuratif Kronis (OMSK) adalah masalah kesehatan masyarakat yang umum di seluruh dunia dan penyebab utama gangguan pendengaran. OMSK juga merupakan salah satu penyakit yang terabaikan terutama di negara-negara berkembang. Faktor imunologi dan genetik serta karakteristik tuba diduga berperan terhadap etiologi OMSK. Salah satu sistem imun yang berperan dalam mengeliminasi bakteri adalah imun bawaan. Molekul penting pada sistem imun bawaan adalah *Mannose-Binding Lectin* (MBL) dan sitokin proinflamasi. Beberapa mediator inflamasi penting yang ditemukan dalam cairan telinga tengah adalah Tumor Necrosis Factor- α (TNF- α) dan Interleukin-1 β (IL-1 β). Tujuan penelitian ini untuk menentukan hubungan kadar MBL, kadar TNF- α , dan kadar IL-1 β terhadap luas perforasi membran timpani, jenis ketulian, dan derajat ketulian pasien OMSK TT.

Penelitian ini merupakan penelitian observasional analitik dengan desain potong lintang. Populasi terjangkau penelitian ini adalah penderita OMSK TT yang berobat ke klinik THT RSUD Prof. Dr. Margono Soekarjo Purwokerto. Uji *t Test* independen digunakan untuk mengetahui perbedaan rerata kadar MBL, TNF- α , dan IL-1 β pada pasien OMSK TT dengan individu sehat, sedangkan uji korelasi Spearman digunakan untuk menentukan kekuatan hubungan antara kadar MBL, TNF- α , dan IL-1 β dengan luas perforasi. Analisis yang digunakan untuk menentukan kekuatan hubungan antara kadar MBL, TNF- α , dan IL-1 β dengan jenis ketulian dan derajat ketulian yaitu menggunakan uji korelasi Pearson.

Uji korelasi antara kadar MBL dengan luas perforasi membran timpani ($r = 0,09$; $p = 0,44$), jenis ketulian ($r = 0,13$; $p = 0,26$), dan derajat ketulian ($r = 0,09$; $p = 0,42$) yang berarti tidak terdapat hubungan yang bermakna antara kadar MBL dengan luas perforasi membran timpani, jenis ketulian dan derajat ketulian ($p > 0,05$). Uji korelasi antara kadar TNF- α dengan luas perforasi membran timpani ($r = -0,05$; $p = 0,66$), jenis ketulian ($r = -0,63$; $p = 0,57$), dan derajat ketulian ($r = -0,05$; $p = 0,63$). Hal tersebut berarti bahwa tidak terdapat hubungan antara kadar TNF- α dengan luas perforasi membran timpani, jenis ketulian, dan derajat ketulian ($p > 0,05$). Uji korelasi untuk menentukan hubungan antara kadar IL-1 β serum dengan luas perforasi membran timpani mendapatkan hasil $r = 0,09$ & $p = 0,39$. Hubungan antara kadar IL-1 β dengan jenis ketulian didapatkan hasil $r = 0,11$ dan $p = 0,29$ dan terhadap derajat ketulian didapatkan hasil $r = 0,09$; $p = 0,38$. Hal ini berarti bahwa tidak terdapat hubungan yang bermakna antara kadar IL-1 β dengan luas perforasi membran timpani, jenis ketulian dan derajat ketulian.

Kesimpulan penelitian ini adalah tidak terdapat hubungan yang bermakna antara kadar MBL, TNF- α dan IL-1 β dalam serum dengan luas perforasi membran timpani, jenis ketulian, dan derajat ketulian pada penderita OMSK tipe Tubotimpani.

Kata Kunci: *Mannose-Binding Lectin, Tumor Necrosis Factor- α , Interleukin-1 β , Otitis Media Supuratif Kronik tipe Tubotimpani*

ABSTRACT

Chronic Suppurative Otitis Media (CSOM) is a common public health problem worldwide and a major cause of hearing loss. CSOM is also one of the most neglected diseases especially in developing countries. Immunologic and genetic factors and tubal characteristics are thought to contribute to the etiology of CSOM. One of the immune systems that play a role in eliminating bacteria is innate immune. Essential molecules in the innate immune system are Mannose-Binding Lectin (MBL) and proinflammatory cytokines such as Tumor Necrosis Factor- α (TNF- α) and Interleukin-1 β (IL-1 β). The objectives of this study were to determine the relationship of MBL levels, TNF- α levels, and IL-1 β levels to perforation area of tympanic membrane type of hearing loss, and degree of hearing loss of CSOM TT patients.

This research was an analytic observational study with cross sectional design. Affordable population of this study is patient of CSOM TT who went to the ENT clinic of RSUD Prof. Dr. Margono Soekarjo Purwokerto. The independent t test was used to determine the mean difference of MBL, TNF- α , and IL-1 β levels in patients with CSOM TT with healthy subjects, whereas Spearman's correlation test was used to determine the strength of the relationship between MBL, TNF- α , and IL-1 β levels with perforation area of tympanic membrane. The analysis used to determine the strength of the relationship between MBL, TNF- α , and IL-1 β levels with type of hearing loss, and degree of hearing loss was Pearson correlation test.

The correlation test between MBL level and perforation area of tympanic membrane ($r = 0,09$; $p = 0,44$), type of hearing loss, ($r = 0,13$, $p = 0,26$), and degree of hearing loss ($r = 0,09$; $p = 0,42$) which means there was no significant relationship between MBL level and perforation area of tympanic membrane, type of hearing loss, and degree of hearing loss ($p > 0,05$). The correlation test between TNF- α levels and perforation area of tympanic membrane ($r = -0,05$; $p = 0,66$), type of hearing loss ($r = -0,63$; $p = 0,57$), and degree of hearing loss ($r = -0,05$; $p = 0,63$). It means that there was no relationship between TNF- α levels and perforation area of the tympanic membrane, the type of hearing loss, and degree of hearing loss ($p > 0,05$). The correlation test to determine the relationship between serum IL-1 β and perforation area of the tympanic membrane obtained $r = 0,09$ & $p = 0,39$. The relationship between IL-1 β and type of hearing loss, was obtained $r = 0,11$ and $p = 0,29$ and the degree of hearing loss was obtained $r = 0,09$; $p = 0,38$. It means that there was no significant relationship between IL-1 β and perforation area of the tympanic membrane, the type of hearing loss, and degree of hearing loss.

The conclusion of this study is that there was no significant relationship between MBL, TNF- α and IL-1 β serum level with perforation area of tympanic membrane, type of hearing loss, and degree of hearing loss in CSOM Tubotympanic type.

Keywords: Mannose-Binding Lectin, Tumor Necrosis Factor- α , Interleukin-1 β , Chronic Suppurative Otitis Media Tubotympanic type