ABSTRAK

Latar Belakang: Prevalensi otitis media kronik masih tinggi di negara berkembang dan termasuk ke dalam 10 penyakit terbanyak dibidang THTBKL di Indonesia. Timpanoplasti memiliki peran penting dalam merekonstruksi perforasi membran timpani, mengeradikasi penyakit dan meningkatkan fungsi pendengaran. Keberhasilan timpanoplasti diperngaruhi oleh banyak faktor, antara lain telinga tengah dan tuba eustachius. **Tujuan:** Tujuan penelitian ini untuk mengetahui hubungan ukuran morfologi tuba eustachius dan *midle ear risk index* (MERI) dengan keberhasilan timpanoplasti pada pasien otitis media supuratif kronik. **Metode:** Penelitian observasional analitik dengan design belah lintang pada pasien otitis media kronik yang menjalankan operasi timpanoplasti tipe 1. Sampel yang ditentukan sebanyak 87. Data diambil dari rekam medis dievaluasi skor MERI dan *graft uptake* satu bulan paska operasi. Ukuran morfologi tuba eustachius dari MSCT Scan mastoid tanpa kontras yang diekspertise oleh 2 radiolog dan dilakukan uji kappa. Keberhasilan timpanoplasti dinilai dari *graft uptake.* Analisis statistik dengan uji *chi square*. H**asil**: Sebanyak 87 sampel penelitian, rata-rata usia 36,72 (± SD 12,16), jenis kelamin perempuan 69% dengan onset penyakit 1-5 tahun 36%. Angka keberhasilan timpanoplasti 82,8%. MERI skor dengan resiko ringan 65,5%. Uji kappa pada ukuran morfologi panjang tuba eustachius didapatkan tingkat kesepakatan sedang (κ = 0,661), diameter pre timpanik dengan tingkat kesepakan kuat (κ = 0,869) dan sudut tubotimpanik dengan tingkat kesepakatan kuat (κ = 0,812). Ukuran morfologi panjang tuba eustachius tidak normal 96%, diameter pre timpanik tidak normal 86,2% dan sudut tubotimpanik tidak normal 73,6%. Tidak terdapat hubungan yang bermakna pada ukuran morfologi tuba eustachius dari panjang (*p* 0,437), diameter pre timpanik (*p* 0,340) dan sudut tubotimpanik (*p* 0,395) dengan keberhasilan timpanoplasti. Terdapat hubungan yang bermakna pada *midde ear risk index* (*p* <0,001) dengan keberhasilan timpanoplasti. **Kesimpulan:** Tidak ada hubungan pada ukuran morfologi tuba eustachius dari panjang, diameter pre timpanik maupun sudut tubotimpanik dengan keberhasilan timpanoplasti. Terdapat hubungan *midde ear risk index* dengan keberhasilan timpanoplasti.

Kata kunci: *otitis media supuratif kronik, keberhasilan timpanoplasti, middle ear risk index, ukuran morfologi tuba eustachius.*

ABSTRACT

Background: The prevalence of chronic otitis media remains high in developing countries and is among the 10 most common diseases in the field of otorhinolaryngology in Indonesia. Tympanoplasty plays an important role in reconstructing perforations of the tympanic membrane, eradicating the disease, and improving hearing function. The success of tympanoplasty is influenced by many factors, including the middle ear and Eustachian tube. **Objective:** The aim of this study was to determine the relationship between the morphological size of the Eustachian tube and the middle ear risk index (MERI) with the success of tympanoplasty in patients with chronic suppurative otitis media. **Methods:** An analytical observational study with a cross-sectional design in patients with chronic otitis media undergoing type 1 tympanoplasty. The sample size was 87. Data were collected from medical records and evaluated using the MERI score and graft uptake one month postoperatively. The morphological dimensions of the Eustachian tube were measured from non-contrast MSCT scans of the mastoid, reviewed by two radiologists, and subjected to a Kappa test. The success of tympanoplasty was assessed based on graft uptake. Statistical analysis was performed using the chi-square test. **Results:** A total of 87 research samples, with an average age of 36.72 (± SD 12.16), 69% female, with 36% experiencing disease onset between 1-5 years. The success rate of tympanoplasty was 82.8%. MERI score with mild risk was 65.5%. The Kappa test for the morphological measurements of the Eustachian tube length moderate agreement ($\kappa = 0.661$), the pre-tympanic diameter showed strong agreement ($\kappa = 0.869$), and the tubotympanic angle demonstrated strong agreement ($\kappa = 0.812$). Abnormal morphological measurements of the Eustachian tube length were 96%, abnormal pre-tympanic diameter was 86.2%, and abnormal tubotympanic angle was 73.6%. There was no significant association between the morphological measurements of the Eustachian tube length, ($p = 0.437$) ; pre-tympanic diameter ($p = 0.340$) ; and tubotympanic angle ($p = 0.395$) with the success of tympanoplasty. There was a significant association between the middle ear risk index ($p < 0.001$) and the success of tympanoplasty. **Conclusion:** There is no relationship between the morphological dimensions of the Eustachian tube including its length, pre-tympanic diameter, and tubotympanic angle with the success of tympanoplasty. There is a relationaship between the middle ear risk index with the success of tympanoplasty.

Keywords: *chronic suppurative otitis media, tympanoplasty success, middle ear risk index, eustachian tube morphology size.*