

KORELASI OBSTRUKSI KOMPLEKS OSTIOMEATAL DENGAN DERAJAT KEPARAHAN RHINOSINUSITIS KRONIS PADA PASIEN RHINITIS ALERGI MENGGUNAKAN CT SINUS PARANASAL

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INTISARI

Latar Belakang: Rhinosinusitis kronis (RSK) merupakan penyakit inflamasi yang kompleks, sering berhubungan dengan rinitis alergi (RA) dan variasi anatomi seperti obstruksi kompleks ostiomeatal (KOM). Kombinasi antara faktor anatomi dan imunologis mempengaruhi keparahan RSK. Penilaian radiologis, dengan menggunakan skor *Lund-Mackay*, berguna untuk menentukan derajat keparahan RSK dan menentukan terapi.

Tujuan: Mengetahui korelasi obstruksi kompleks ostiomeatal dengan derajat keparahan rhinosinusitis kronis pada pasien rhinitis alergi menggunakan CT sinus paranasal.

Metode: Penelitian ini merupakan penelitian analitik observasional dengan desain cross sectional. Data retrospektif subjek penelitian diperoleh berdasarkan hasil pemeriksaan CT sinus paranasal. Skor *Lund-Mackay* ditentukan dari gradasi radiologi sinus maksila, sinus frontal, sel etmoid anterior, sel etmoid posterior, dan sinus sfenoid. Sedangkan obstruksi kompleks ostiomeatal (KOM) dibagi menjadi 3 kelompok yaitu, tanpa obstruksi, obstruksi parsial dan obstruksi total.

Hasil: Penelitian terhadap 43 pasien RSK dengan riwayat RA menunjukkan bahwa mayoritas subjek adalah perempuan (60,5%), memiliki rentang usia antara 20-40 tahun (41,9%), total skor *Lund-Mackay* dalam kategori ringan (53,5%), obstruksi parsial KOM kanan (51,2%) dan obstruksi parsial KOM kiri (53,5%). Terdapat korelasi signifikan antara skor Lund Mackay total dengan obstruksi KOM kanan ($p < 0,001$, $r = 0,726$) dan korelasi yang sedang dengan obstruksi KOM kiri ($p < 0,001$, $r = 0,443$)

Kesimpulan: terdapat korelasi yang signifikan secara statistik antara obstruksi KOM sisi kanan dan KOM sisi kiri dengan skor *Lund Mackay* total. Semakin berat derajat obstruksi KOM, semakin tinggi skor *Lund Mackay* total (semakin berat derajat keparahan RSK)

Kata kunci: rhinosinusitis kronis, rhinitis alergi, Obstruksi KOM, skor *Lund Mackay*, CT sinus paranasal

CORRELATION BETWEEN OSTIOMEATAL COMPLEX OBSTRUCTION AND THE SEVERITY OF CHRONIC RHINOSINUSITIS IN PATIENTS WITH ALLERGIC RHINITIS USING PARANASAL SINUS CT

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ABSTRACT

Background: Chronic rhinosinusitis (CRS) is a complex inflammatory disease often associated with allergic rhinitis (AR) and anatomical variations such as obstruction of the ostiomeatal complex (OMC). The severity of CRS is influenced by a combination of anatomical and immunological factors. Radiological assessment using the Lund-Mackay scoring system is useful in determining the severity of CRS and guiding treatment decisions.

Objective: This study aims to evaluate the correlation between ostiomeatal complex (OMC) obstruction and the severity of chronic rhinosinusitis in patients with allergic rhinitis using paranasal sinus CTs.

Methods: This was an observational analytic study with a cross-sectional design. Retrospective data of study subjects were obtained from paranasal sinus CT results. The Lund-Mackay score was determined based on radiological grading of the maxillary sinus, frontal sinus, anterior ethmoid cells, posterior ethmoid cells, and sphenoid sinus. OMC obstruction was categorized into three groups: no obstruction, partial obstruction, and total obstruction.

Result: Among 43 CRS patients with a history of AR, the majority were female (60.5%) and aged between 20–40 years (41.9%). Most subjects had mild total Lund-Mackay scores (53.5%), partial right OMC obstruction (51.2%), and partial left OMC obstruction (53.5%). A statistically significant correlation was found between the total Lund-Mackay score and right OMC obstruction ($p < 0.001$, $r = 0.726$), as well as a moderate correlation with left OMC obstruction ($p < 0.001$, $r = 0.443$).

Conclusion: There is a statistically significant correlation between both right and left OMC obstruction and the total Lund-Mackay score. Greater degrees of OMC obstruction are associated with higher total Lund-Mackay scores, indicating increased severity of chronic rhinosinusitis.

Keywords: chronic rhinosinusitis, allergic rhinitis, OMC obstruction, Lund-Mackay score, paranasal sinus CT