HUBUNGAN VARIASI ANATOMI *OSTEOMEATAL COMPLEX* DENGAN SINUSITIS MAKSILARIS PADA PEMERIKSAAN *COMPUTED TOMOGRAPHY* DI RSUD AJIBARANG TAHUN 2024

ABSTRAK

Latar Belakang: *Osteomeatal complex* (OMC) merupakan jalur utama drainase dan ventilasi sinus paranasal. Variasi anatomi pada area ini, seperti deviasi septum nasi dan *concha bullosa*, dapat mengganggu aliran udara serta meningkatkan risiko sinusitis. *Computed Tomography* (CT) Scan merupakan metode terbaik untuk mengevaluasi variasi anatomi OMC yang berpotensi memengaruhi terjadinya sinusitis maksilaris.
Tujuan: Mengetahui hubungan antara variasi anatomi OMC dengan sinusitis maksilaris berdasarkan hasil CT Scan kepala di RSUD Ajibarang tahun 2024.
Metode: Penelitian analitik observasional dengan desain *cross-sectional* menggunakan data CT Scan kepala dari pasien yang memenuhi kriteria inklusi. Variabel bebas meliputi berbagai variasi anatomi OMC, sedangkan variabel terikat adalah sinusitis maksilaris. Penilaian dilakukan oleh tiga observer dengan uji Fleiss' Kappa, an alisis univariat dilakukan untuk menggambarkan frekuensi masing-masing variabel dan data dianalisis menggunakan Chi-square (χ^2) dengan $p < 0,05$.
Hasil: Tingkat kesesuaian antar–observer *substantial* hingga sempurna ($\kappa = 0,76$–$1,00$). Sebagian besar pasien mengalami sinusitis maksilaris (69,44%) dengan variasi anatomi terbanyak berupa deviasi septum nasi (52,78%). Hanya deviasi septum nasi yang menunjukkan hubungan bermakna dengan sinusitis maksilaris ($p= 0,001$).
Kesimpulan: Deviasi septum nasi merupakan variasi anatomi OMC yang berhubungan signifikan dengan sinusitis maksilaris, sedangkan variasi lainnya tidak menunjukkan hubungan bermakna.
Kata Kunci: CT Scan, deviasi septum nasi, *osteomeatal complex*, sinusitis maksilaris

THE RELATIONSHIP BETWEEN OSTIOMEATAL COMPLEX ANATOMICAL VARIATIONS AND MAXILLARY SINUSITIS ON COMPUTED TOMOGRAPHY EXAMINATION AT AJIBARANG REGIONAL PUBLIC HOSPITAL IN 2024

ABSTRACT

***Background**: The osteomeatal complex (OMC) is the main pathway for drainage and ventilation of the paranasal sinuses. Anatomical variations in this area, such as nasal septal deviation and concha bullosa, may disrupt airflow and increase the risk of sinusitis. Computed Tomography (CT) Scan is considered the most accurate modality to evaluate OMC anatomical variations that may contribute to the development of maxillary sinusitis.*

***Objective**: To determine the relationship between OMC anatomical variations and maxillary sinusitis based on head CT Scan findings at Ajibarang Regional Public Hospital in 2024.*

***Methods**: An analytical observational study with a cross-sectional design was conducted using paranasal sinus CT Scan data from patients who met the inclusion criteria. The independent variables were various anatomical variations of the OMC, while the dependent variable was maxillary sinusitis. Image assessment was performed by three observers using the Fleiss' Kappa test, and data were analyzed using the Chi-square (χ^2) test with a significance level of $p < 0.05$.*

***Results**: Interobserver agreement ranged from substantial to almost perfect (κ = 0.76–1.00). Most patients had maxillary sinusitis (69.44%), with nasal septal deviation being the most common anatomical variation (52.78%). Only nasal septal deviation showed a significant association with maxillary sinusitis ($p = 0.001$).*

***Conclusion**: Nasal septal deviation is the OMC anatomical variation significantly associated with maxillary sinusitis, whereas other variations did not show a statistically significant relationship.*

***Keywords**: CT Scan, maxillary sinusitis, nasal septal deviation, osteomeatal complex*