

Perbedaan dan perubahan posisi protesa kondilus pada pasien ameloblastoma pascareseksi disartikulasi mandibula dengan/tanpa penggunaan model 3D stereolithografi : di RSUPN Cipto Mangunkusumo Jakarta periode 2015-2020 = The change and difference of the position of the condyl protesa of ameloblastoma patients post mandibular disarticulation resection with/without the use of 3D stereolithography model at Cipto Mangunkusumo National Central General Hospital Jakarta 2015-2020

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Abstrak

Latar Belakang: Kondilus mandibula sering terlibat dalam berbagai kondisi patologis seperti tumor dan cedera traumatis, dimana melibatkan kondilus mandibula sehingga memerlukan reseksi dan pengangkatannya. Ameloblastoma mencakup sekitar 14% dari semua tumor rahang dan kista dan merupakan tumor odontogenik yang prevalensinya paling tinggi di negara berkembang. Pelat rekonstruksi mandibula digunakan dalam bedah mulut dan maksilofasial untuk rekonstruksi defek mandibula. Karena mandibula memainkan peran sentral dalam fungsi dan estetika, hilangnya kontinuitas rahang dapat sangat merusak integritas rahang pasien, dan sangat mempengaruhi persepsi diri dan kepercayaan diri pasien. Saat ini, kemajuan teknologi tiga dimensi (3D) dapat digunakan untuk membuat model aloplastik untuk rekonstruksi mandibula.

Tujuan Penelitian: Mengetahui dan menganalisis perbedaan perubahan posisi protesa kondilus pada pasien ameloblastoma pascareseksi disartikulasi yang menggunakan 3D Model STL dan tidak menggunakan 3D Model STL pre operasi pada kontrol 1 hari setelah operasi dan 6 bulan pascareseksi mandibula di Rumah Sakit Ciptomangunkusumo Jakarta periode 2015-2020.

Metode Penelitian: 22 subjek penelitian panoramik diambil dari pasien Rumah Sakit Ciptomangunkusumo sesuai dengan kriteria inklusi dan eksklusi. Subjek penelitian dilihat perbedaan nilai rata-rata tinggi protesa kondilus antara 2 kelompok (dengan Model 3D STL dan tanpa Model 3D STL) pada 1 hari pascareseksi dan 6 bulan pascareseksi. Pengukuran dilakukan dengan menggunakan aplikasi IC Measure. Analisis data untuk melihat perbedaan nilai rata-rata letak posisi protesa kondilus antara 2 kelompok (dengan Model 3D STL dan tanpa Model 3D STL) pada 1 hari pasca reseksi dan 6 bulan pasca reseksi dilakukan dengan menggunakan Uji Dependent T.test dan Wilcoxon- Signed Rank test dan perbedaan nilai tinggi dan letak posisi protesa kondilus antara 2 kelompok (dengan Model 3D STL dan tanpa Model 3D STL) 1 hari pasca reseksi dan 6 bulan pasca reseksi dengan menggunakan Uji ANOVA.

Hasil: Terdapat perbedaan ketinggian dengan nilai P sebesar $P= 0,004$ dan tidak terdapat perbedaan letak protesa yang signifikan secara statistik dengan nilai P sebesar $P= 0,66$ antara kontrol 1 hari pasca reseksi dan 6 bulan pasca reseksi dengan model 3D STL. Terdapat perbedaan ketinggian dengan nilai P sebesar $P=0,005$ dan tidak terdapat perbedaan letak protesa yang signifikan secara statistik dengan nilai P sebesar $P= 0,76$ antara kontrol 1 hari pascareseksi dan 6 bulan pascareseksi tanpa model 3D STL.

Kesimpulan: tidak terdapat perbedaan ketinggian dan letak protesa pada fossa kondilus yang signifikan secara statistik antara kelompok 1 hari tanpa model STL, 1 hari dengan model STL, 6 bulan dengan model

STL dan 6 bulan tanpa model STL pascareseksi disartikulasi.

.....Background: Mandibular condyles are often involved in various pathological conditions such as tumors and traumatic injuries, that involving the mandibular condyles that require resection and removal.

Ameloblastoma accounts for approximately 14% of all jaw tumors and cysts and is the most prevalent odontogenic tumor in developing countries. Mandibular reconstruction plates are used in oral and maxillofacial surgery for the reconstruction of mandibular defects. Since the mandible plays a central role in function and esthetics, loss of jaw continuity can severely impair the patient's jaw integrity, and severely affect the patient's self-perception and self-confidence. Currently, technological advances in three-dimensional (3D) models can be used to create alloplastic models for mandibular reconstruction.

Aim: To know and analyze the differences in the position changes of the condylar prosthesis in ameloblastoma patients after disarticulation resection using the 3D STL model and not using the 3D STL model preoperatively in controls 1 day after surgery and 6 months after mandibular resection at Ciptomangunkusumo Hospital, Jakarta. 2015-2020 period.

Methods: 22 panoramic research subjects were taken from Ciptomangunkusumo Hospital patients according to the inclusion and exclusion criteria. Research subjects saw the difference in the average height of the condylar prosthesis between the 2 groups (with 3D STL model and without STL 3D model) at 1 day post-resection and 6 months post-resection. Measurements are carried out using the IC Measure application. Data analysis to see the difference in the average value of the position of the condylar prosthesis between the 2 groups (with 3D STL Model and without 3D STL Model) at 1 day post-resection and 6 months post-resection was carried out using the Dependent T.test and Wilcoxon-Signed Rank Test. The difference in the height and position of the condylar prosthesis between the 2 groups (with 3D STL model and without STL 3D model) 1 day after resection and 6 months after resection using the ANOVA test.

Result: There was a difference in height with a P value of $P = 0.004$ and there was no statistically significant difference in location with a P value of $P = 0.66$ between controls 1 day post-resection and 6 months post-resection with the 3D STL model. There was a difference in height with a P value of $P = 0.005$ and there was no statistically significant difference in the location of the protest with a P value of $P = 0.76$ between controls 1 day post-resection and 6 months post-resection without the 3D STL model.

Conclusion: There was no statistically significant difference in height and position of the prosthesis between controls 1 day post-resection and 6 months post-resection without 3D STL model, there was no statistically significant difference in height and position of the prosthesis between controls 1 day post-resection and 6 months post resection with 3D STL model.