Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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2020. The preoperative virtual surgical plan and postoperative cone beam computed tomographic scan were registered in 3-Matic software (Materialise, Leuven, Belgium) using cranial base landmarks. The conformity of the postoperative skull model to the virtual surgical plan was quantified using linear and angular measurements at various 3D bony landmarks. The average mean difference (AMD) in the x-, y-, and z-axes was calculated. Paired T-tests were used to compare postoperative measurements with those from the preoperative STL. Multivariate linear regression was performed to analyze and modifying effects of age, gender, number of segments (2 vs. 3), and malocclusion class.

Results: Twenty-nine patients were included (mean age 24.5 years; 72.4% female). Three-dimensional analysis showed significant AMD between the virtual plan and postoperative CBCT for the following landmarks: U1 Midpoint (y, AMD: 1.65mm, P = .03), B point (y, AMD: 1.63mm, P = .005), pogonion (y, AMD: 2.38mm, P = .0005), menton (y, AMD: 2.22mm, P = .0003). There were no differences between the virtual plans and postoperative CBCT at any other points. Transversely, the overall AMD was 1.15mm, with under-expansion occurring in 79.3% (2.18mm) and over-expansion in 20.7% of patients (1.65mm). Angular measurements revealed statistical significance for SNB (AMD: 1.38, P = .02), but not for SNA and ANB values. Multivariate regression showed no association between age, gender, segmentation (2 vs. 3), or class of malocclusion and the extent of conformity for any measurements.

Conclusion: There is a high degree of conformity between the VSP and postoperative results following triple jaw orthognathic surgery with segmental maxillary osteotomies. The greatest non-conformity was found in the sagittal plane and was mostly limited to the mandible. Segmentation did not affect surgical accuracy of the maxillary movements.

How has the COVID-19 Pandemic Impacted the Clinical Volume and Variety of an Academic Oral and Maxillofacial Surgery Program?

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Abstract: Purpose: Attempts to mitigate the coronavirus disease of 2019 (COVID) have disrupted the delivery of non-pandemic care. The purpose of this study was to evaluate the effects of the COVID pandemic on surgical volume and variety at an academic oral and maxillofacial surgery program.

Materials and methods: A retrospective cohort study was conducted using the surgical logs of the University of Pennsylvania, Department of Oral and Maxillofacial Surgery from January 2012 through January 2021. Each record identified patient demographics and case classifications. Of note, the surgical logs analyzed were only those which were performed in the operating room and not the outpatient clinic nor emergency department. The study predictor was timing of care, which was divided into pre-pandemic, peak pandemic, or post-peak pandemic. The primary study outcomes were the monthly procedure count and the procedure categories. The secondary dependent variables were patient age and race. Multivariate and univariate analyses of variance were used to determine whether pandemic effects existed within outcome groups.

Results: The final sample included 64,709 surgical procedures (Table 1). Before, during, and after the pandemic peak, there were means of 691.0, 209.0, and 789.4 procedures per time period, respectively (p < 0.01) (Table 2). There were significantly more infection (baseline 2.2%, peak 6.0%, post-peak 2.0%, p<0.01) and trauma (baseline 5.3%, peak 26.7%, post-peak 3.9%, p<0.01) cases during the pandemic peak (Table 3). The mean percentage of pediatric patients increased during the peak and post-peak periods (baseline 2.4%, peak 12.9%, post-peak 10.2%, p<0.01) (Table 3). No differences were observed among the mean percentage of white (p=0.12), black (p=0.21), and Hispanic (p=0.25) patients treated (Table 3).
required operating room drainage. Despite all these changes, surgery volume normalized, and case variety returned to pre-pandemic levels in the post-peak period. Our study suggests that the addition of COVID restrictions did not change the case volume or variety in the months after the initial crisis.

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Figure 1

Table 1

| Procedure category | Baseline | COVID peak | COVID post peak | P-value |
|--------------------|----------|------------|----------------|---------|
| Dental/Alveolar     | 46,361   | 71.7%      | 69.5%          | <0.01*  |
| Sedation           | 4,748    | 7.3%       | 6.9%           |         |
| Pathology          | 4,491    | 6.9%       | 6.6%           |         |
| Trauma             | 3,427    | 5.3%       | 5.2%           |         |
| TMJ                | 2,271    | 3.5%       | 3.4%           |         |
| Infection          | 1,383    | 2.1%       | 1.9%           |         |
| Orthognathic       | 1,147    | 1.8%       | 1.8%           |         |
| Cancer/Reconstruction | 766   | 1.2%       | 1.3%           |         |
| Cosmetic           | 82       | 1.0%       | 1.0%           |         |
| Craniofacial       | 33       | 0.1%       | 0.1%           |         |

Table 2. One-way ANOVA comparing mean monthly surgical volume by time period.

* p<0.05, # mean (SD)

Table 3. Post-hoc ANOVA comparing the mean monthly percentage of each outcome by time period.

* p<0.05

**Improved Quality of Living following Simultaneous Condylectomy and Orthognathic Surgery: A Retrospective Analysis for Active Unilateral Condylar Hyperplasia**

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Abstract: The objective was to assess quality of life in patients who underwent simultaneous condylectomy and orthognathic surgery in conjunction with orthodontic treatment for active unilateral condylar (TMJ) hyperplasia. This pathologic process leads to the development of esthetic and functional concerns. High condylectomy (7-10mm of bone removed from condylar process) simultaneously performed with orthognathic surgery is the treatment studied, but currently, there is no published literature that analyzes patient satisfaction. A total of 51 patients who underwent simultaneous condylectomy and orthognathic surgery for active unilateral condylar hyperplasia at UNC hospitals between 2004 and 2017 (minimum 4 years postop) were mailed a questionnaire containing 21 questions to assess their quality of life after undergoing treatment. All patients underwent orthodontic treatment in conjunction with surgery.

A total of 24 (47%) patients completed and returned the questionnaire. Sixteen (67%) were female and 8 (33%) were male, similar to the treatment population. Twenty-three (96%) reported that they are satisfied with their results. Even after fully realizing the consequences of treatment, these 23 respondents endorsed that they would do it again. Benefits of treatment included appearance change, improved mastication, reduction of...