

**PEDIATRIC AMELOBLASTOMA: AN UPDATE ON 28 YEARS OF EXPERIENCE** Max R.

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**Purpose:** Ameloblastoma is a benign but aggressive odontogenic tumor of the jaws that may be divided into unicystic and multicystic/solid histologic subtypes. Unicystic lesions can be further subdivided based on the presence of mural involvement of the surrounding bone, and these classifications are important in directing treatment. Ameloblastomas are relatively rare in the pediatric population and there remains controversy surrounding their management in these patients. Classically, pediatric ameloblastomas have been reported as presenting with the unicystic subtype the majority of the time (76.5%),<sup>1</sup> yet recurrence rates in pediatric ameloblastomas have been reported to be much higher than recurrence rates for ameloblastoma overall.<sup>2</sup>

**Methods:** A retrospective chart review was conducted of patients under the age of 18 years with biopsy-proven ameloblastoma who presented to the University of Maryland Oral and Maxillofacial Surgery Department from 1991 to 2019. This review yielded 29 patients, including 27 patients who were treated at our institution. Data were collected regarding demographic characteristics, radiographic and clinical presentation, histology, treatment modalities, and recurrence.

**Results:** Average age at diagnosis was 12.9 years (range, 3-17 years). There was an equal distribution of male (52%) and female (48%) patients. The majority of patients were black (52%). Average length of follow-up was 55.4 months (range, 1 month to 23 years). The majority of the lesions were located in the mandible (93%) and lesions most commonly involved the body (59%), followed by the angle (52%) and symphysis (41%). Most lesions were primary (90%), 2 of which had been previously treated but were re-excised in order to remove suspected residual disease. Among tumors for which adequate histologic data were available, 43% were solid/multicystic subtype, 52% were unicystic (55% mural subtype), and 1 was ultimately determined to be an ameloblastic carcinoma. Treatment modalities included both enucleation (37%) and resection (63%). Reconstruction was performed using either nonvascularized autologous bone grafting (53%) or fibula free flap (47%). Two patients developed a recurrence (7% overall, 20% for enucleation), with both cases involving a unicystic mandibular lesion treated initially with enucleation. Both patients were ultimately treated with segmental resection and reconstruction using fibula free flaps.

**Conclusion:** Previous studies of pediatric ameloblastomas have suggested high rates of recurrence irrespective of treatment modality and recommend initially conservative treatment based on these findings.<sup>2</sup> However, our data suggest that resection serves as an effective treatment modality for this patient population. Our series demonstrates a larger percentage of solid/multicystic and mural unicystic type lesions than has been classically described. Therefore, it may be prudent to view management of these lesions in a manner more similar to the management of adult ameloblastoma. Given the range of reconstructive options available to these patients, we feel that resection represents the most appropriate initial treatment for mural unicystic and solid/multicystic ameloblastomas, regardless of age.

References

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2. Yang R, Tang Y, Zhang X, et al. Recurrence factors in pediatric ameloblastoma: clinical features and a new classification system. *Head Neck.* 2019;41:3491-3498.

**DOES ALCOHOL CONSUMPTION PROTECT AGAINST LATE DENTAL IMPLANT FAILURES?** Brian R. Carr, DMD, William J.

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**Purpose:** Social factors have been implicated in the development of various peri-implant pathologies, including implant failure. This study aims to investigate whether varying levels of alcohol consumption affects late dental implant failures.

**Methods:** A retrospective cohort study was performed to evaluate implants placed between 2006 and 2012 at the Philadelphia Veterans Affairs Medical Center. The primary predictor variable was alcohol consumption, measured as nonconsumption or mild, moderate, and heavy consumption. The primary outcome variable was late dental implant failure. Other study variables included age, sex, and the type of implant restoration used. Appropriate univariate, bivariate, and multivariate statistics were applied, with  $P < .05$  used to define statistical significance.

**Results:** Our retrospective cohort consisted of 103 unique patients and 295 implants with a 5-year minimum follow-up period. Most patients were male (93%) with an average age of 60 at the time of implant placement. Late dental implant failure was associated with 30 implants (10%). Compared to nonconsumption, mild alcohol consumption was associated with a 75% decrease in late implant failure ( $P = .0494$ ), moderate consumption was associated with a 60% decrease in late implant failure ( $P = .3826$ ), and heavy consumption was associated with a 200% increase in late implant failure ( $P < .1782$ ). Compared to mild alcohol consumption, heavy consumption was associated with an 847% increase in late implant failure ( $P = .0135$ ).

**Conclusion:** The results from this retrospective cohort analysis suggest mild alcohol consumption is associated with a decrease in late dental implant failures, and heavy consumption is associated with an increase in late dental implant failures.

**MINIMALLY INVASIVE APPROACH FOR TOTAL TEMPOROMANDIBULAR JOINT REPLACEMENT** Adam Wandell, DDS, MD,

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**Purpose:** This article describes a novel technique for replacing the temporomandibular joint (TMJ) with a prosthesis. The technique applies a simple endaural incision to approach the temporomandibular joint in order to place a total joint prosthesis. This is followed by small trochar site incisions for plating of the prosthesis. The technique was performed on 4 patients (8 TMJs).

The potential benefits and complications of this approach are discussed throughout the article.

**Methods:** The single endaural approach was performed to replace bilateral TMJs in 4 patients in the Department of Oral and Maxillofacial Surgery, University of Texas Health Science Center at San Antonio. All 4 patients were followed up and examined once immediately after the procedure on postoperative day 1, 1 week postoperatively, and at varied times for up to 6 months.

**Results:** Postoperative exams were scheduled for 1-week and consecutive 1-month evaluations until symptoms resolved. Full head and neck exams were performed at each appointment. All patients had increased maximal interincisal opening (MIO) with very minimal swelling on day 1 of postoperative evaluation. They also reported a decrease in myofascial pain and headache. All 4 patients had temporary bilateral frontal and zygomatic facial nerve dysfunction that resolved with a mean time of 110 days.

**Conclusion:** All 4 patients in the research study had complications presenting as temporary bilateral frontal and zygomatic facial nerve dysfunction resolving within 4 months postsurgery. Directly after procedures were performed, the patients demonstrated increased function including greater mouth opening and conveyed experiencing diminished pain sensations. Although the preauricular endaural combined with a submandibular approach is considered the standard for temporomandibular joint (TMJ), the endaural only approach was adequate in this case providing immediate increases in MIO and decreases in patient perceived disability after the procedure. The single endaural method only created minor small incisions through the skin to extend to and increase the visibility of the appropriate area. It is a less invasive technique resulting in minimal tissue disturbance with immediately functional and aesthetically preferable results.

**FEEDBACK IN ORAL AND MAXILLOFACIAL SURGERY EDUCATION** *Lindsay L. Graves, DDS, MD, Balaji Kolasani, BDS, MD, and Thomas Schlieve, DDS, MD, FACS, University of Texas Southwestern Medical Center/Parkland Memorial Hospital*

**Purpose:** The practice of giving feedback has never been evaluated in OMS (oral and maxillofacial surgery) education. The aim of this study was to characterize variations in feedback-giving strategies utilized in resident education and compare this to their preferred ways of receiving feedback. As a secondary aim, we wish to gauge residents' satisfaction with the feedback they receive. As a tertiary aim, we wish to compare residents' and attendings' perception of said feedback.

**Methods:** We sent surveys to all OMS residency program directors nationwide for completion by their residents and faculty (Figures 1, 2). All responses were recorded via a 5-point Likert scale. Responses were grouped into categories of *agree + strongly agree*, *neutral*, and *disagree + strongly disagree* for statements of preference or agreement and *almost never + seldom*, *sometimes*, *most of the time + nearly all of the time* for statements of setting and time. Wilcoxon-Mann-Whitney *U* tests were used to compare responses between 2 groups, with  $P < .05$  for statistical significance.

**Results:** Our results show significant differences between how feedback is given, based on the residents' perspectives, and how they prefer it to be given. Most notable, 79% would like feedback to occur during a postoperative debrief immediately after the case; however, only 27% report that this is the usual setting ( $P < .0001$ ). Additionally, 92.95% prefer verbal, face-to-face feedback, whereas they agree that it occurs this way 59% of the time ( $P < .0001$ ). In terms of resident satisfaction, only 47% were satisfied with the current feedback practices. The biggest deficiencies appear to be in the quality and specificity of said feedback, with only 43% agreeing that each of these are adequate. Additionally, only 49% felt that the amount was adequate. In regards to faculty vs resident perceptions, significant differences were found in nearly all responses. The groups only agreed on the seldom use of rating tools and the importance of feedback in OMS education, which was nearly unanimous (94% vs 96%). The largest difference was in the use of postoperative debriefing, which faculty reported to occur often 65% of the time, while residents reported only 27% ( $P < .0001$ ). Ninety-four percent of faculty responded that feedback is most often delivered verbally, face-to-face, while only 59% of residents agreed ( $P < .0001$ ). Additionally, 76% of faculty believed the quality of their feedback to be adequate, versus only 43% of residents who felt that this was the case ( $P < .0001$ ).

**Conclusion:** Our results indicate several issues regarding the current practices of feedback in OMS training. Residents most prefer feedback given verbally, face-to-face, in a postoperative debriefing, while they indicate that this is often not the case. Interestingly, faculty believe that both of these occur significantly more frequently than the residents report. Faculty also

On a scale of 1-5, indicate the likelihood of the following (1=almost never, 2=seldom, 3=sometimes, 4=most of the time, 5=nearly all of the time):

In my training program, feedback is given...

- ...verbally, face-to-face.
- ...via electronic assessment or on paper.
- ...using performance-rating tools, i.e. a rubric or app.
- ...in a formal discussion designed and designated for feedback, i.e. resident review.
- ...sporadically as opportunities arise.
- ...during OR cases.
- ...immediately following OR cases, i.e. in a postoperative de-brief.
- ...quarterly or semiannually.

On a scale of 1-5, indicate your preference (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree):

In general, I prefer feedback to be given...

- ...verbally, face-to-face.
- ...via electronic assessment or on paper.
- ...using performance-rating tools, i.e. a rubric or app.
- ...in a formal discussion designed and designated for feedback, i.e. resident review.
- ...sporadically as opportunities arise.
- ...during OR cases.
- ...immediately following OR cases, i.e. in a postoperative de-brief.
- ...quarterly or semiannually.

On a scale of 1-5, rate your agreement with the following statements (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree):

- A large portion of the feedback I receive is from attending faculty.
- A large portion of the feedback I receive is from senior residents.
- Those who directly observe me are those who provide me feedback.
- I am given adequate feedback on my surgical technique.
- I am given adequate feedback on my surgical judgement.
- I feel that the amount of feedback given is adequate for my surgical training.
- I feel that the quality of feedback given is adequate for my surgical training.
- I receive specific enough feedback to direct my learning.
- My faculty ask me for feedback, i.e. suggestions on how they might improve their teaching.
- Overall, I am satisfied with the quality and quantity of feedback given in my training program.
- Feedback given has helped me to critique myself in the future.
- I feel that the feedback given during my surgical training has been pivotal for shaping me into the budding surgeon I am today.
- I believe that feedback is an important aspect of surgical education.

Please indicate your:  
 PGY level (1-6)  
 Residency program type (4- or 6- year)

Figure 1. Resident RedCap Survey.