



Anterior Esthetic Rehabilitation

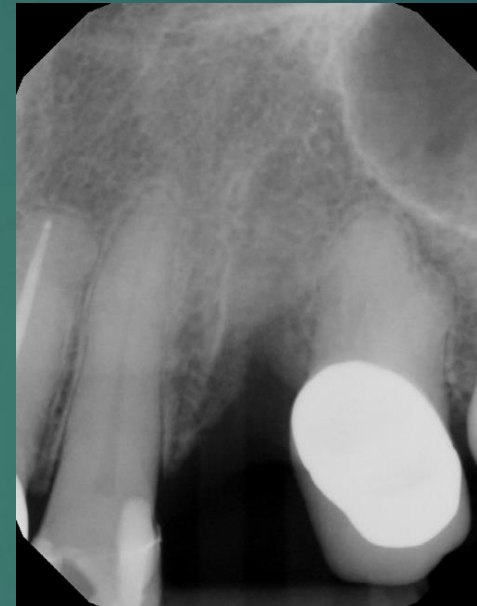
CONNOR FRANCIS – DDS CANDIDATE CLASS OF 2021

Patient Presentation

- ▶ 64 yo Female
- ▶ CC: “I want my missing tooth replaced”
- ▶ Med Hx: Losartan for Hypertension, used to take medications for Diabetes
- ▶ Dental Hx: Missing #11, extracted during COVID shutdown. Patient also missing #20 but at the time was not interested in replacing
- ▶ Social Hx: No smoking, drug use. Patient lives in East Bay

Missing #11

- ▶ After 4 months of healing patient had significant bone loss from EXT #11
- ▶ Both an implant and bridge were considered
 - ▶ Bridge was chosen because patient was catching food in small missing #13 space and the previous restorations of veneer on #10 and Crown #12
- ▶ At the time, patient denied wanting to replace missing #20



The Journey of Replacing #11

- ▶ The patient had previous crown restorations #6-9 that were nearly 20 years old, had chipped porcelain at the cervical, did not fit her smile line and had mismatched shades
- ▶ I proposed adding crowns #6-9 to the plan



Extraoral Photos



Intraoral Photos



Full Smile Design

- ▶ The lab created a wax-up of crowns #6-9 and bridge #10-12
- ▶ I adjusted the wax-ups to reduce the prominence of the canines and give more youthful contours through rounding the incisal edges and embrasures
- ▶ After seeing the wax-ups the patient was excited to get the work completed



Above: Initial Lab Wax-up Below: After my adjustments

Final Provisionals

- ▶ I performed laser gingivoplasty on the facial of #9 and #10. Surgical esthetic crown lengthening was considered but the patient was not interested and she has a medium to low smile line
- ▶ I then took an impression of the temporaries to send to the lab as a template for her final restorations
- ▶ (additional photos on next slide)



Final Provisionals



Digital vs. Conventional Impression

- ▶ Digital Impression techniques are quickly becoming more prevalent in the dental field, and offer both advantages and disadvantages
- ▶ Advantages
 - ▶ Ability to rescan certain areas if capturing multiple teeth
 - ▶ Workflow can be more efficient and save time overall
 - ▶ Though currently evidence is minimal, patients seem to prefer digital over conventional
 - ▶ Accuracy for quadrant restorations, similar or higher than conventional
- ▶ Disadvantages
 - ▶ Full arch scans may be slightly less accurate than conventional
 - ▶ This case was close to a full arch scan, but we had consistent posterior stops
 - ▶ Initial cost of acquiring equipment limits entry into the field

Ahlholm P, Sipilä K, Vallittu P, Jakonen M, Kotiranta U. Digital Versus Conventional Impressions in Fixed Prosthodontics: A Review. *J Prosthodont*. 2018 Jan;27(1):35-41. doi: 10.1111/jopr.12527. Epub 2016 Aug 2. PMID: 27483210.

Cicciù M, Fiorillo L, D'Amico C, Gambino D, Amantia EM, Laino L, Crimi S, Campagna P, Bianchi A, Herford AS, Cervino G. 3D Digital Impression Systems Compared with Traditional Techniques in Dentistry: A Recent Data Systematic Review. *Materials (Basel)*. 2020 Apr 23;13(8):1982. doi: 10.3390/ma13081982. PMID: 32340384; PMCID: PMC7215909.

Takeuchi Y, Koizumi H, Furuchi M, Sato Y, Ohkubo C, Matsumura H. Use of digital impression systems with intraoral scanners for fabricating restorations and fixed dental prostheses. *J Oral Sci*. 2018;60(1):1-7. doi: 10.2334/josnusd.17-0444. PMID: 29576569.

Digital Final Impression

- ▶ I chose to complete a digital final impression to capture all six teeth that were prepared
- ▶ Dr. Andrews and I worked together in tandem removing two cords at a time and scanning in pairs, ensuring the sulcular tissue was well away from the preparation margin



Delivery of Final Restorations

- ▶ I delivered the final restorations in February 2021
 - ▶ At the time the patient was still not sure if she wanted to replace #20
 - ▶ We utilized group function on her left side to minimize the excursive forces on her pontic #11
- ▶ Later I completed a bridge from #19-21 to restore her missing #20



More pictures on later slides

Final Restorations (extraoral)



Final Restorations (intraoral)



Before (above) and Afters (below)



References

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