

Prosthodontic Treatment for a 6-Year-Old with Ectodermal Dysplasia: A Case Report

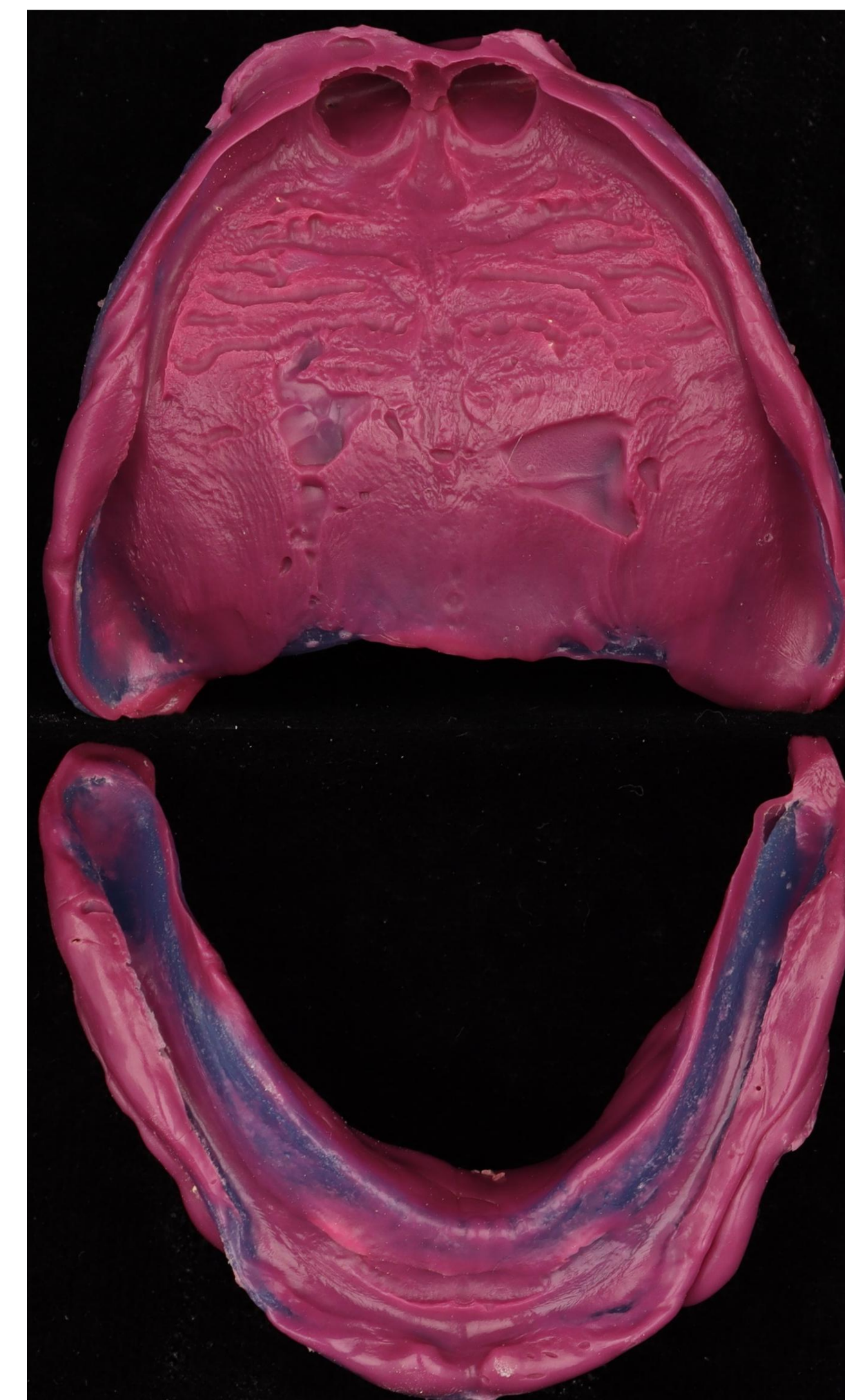
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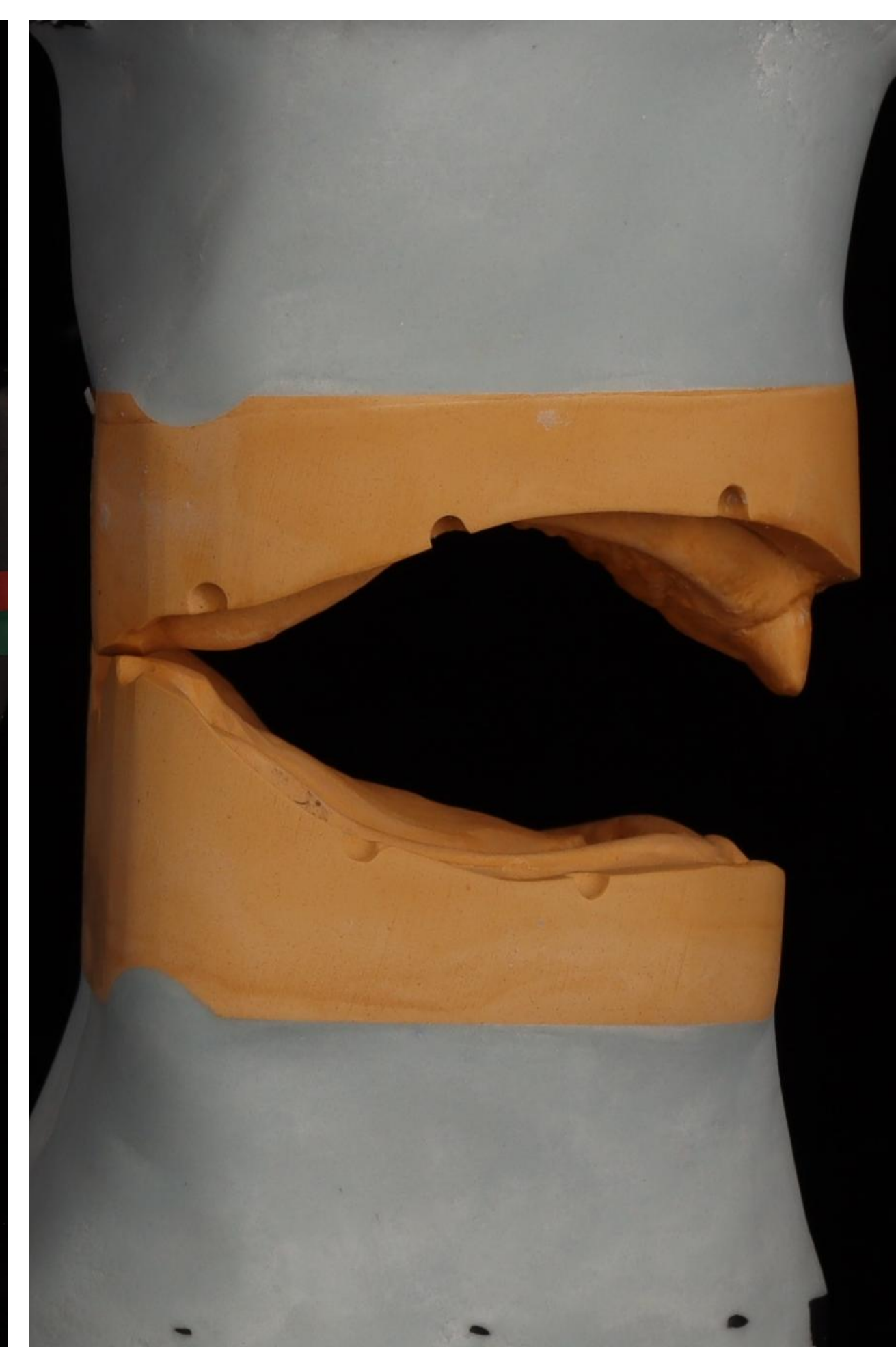
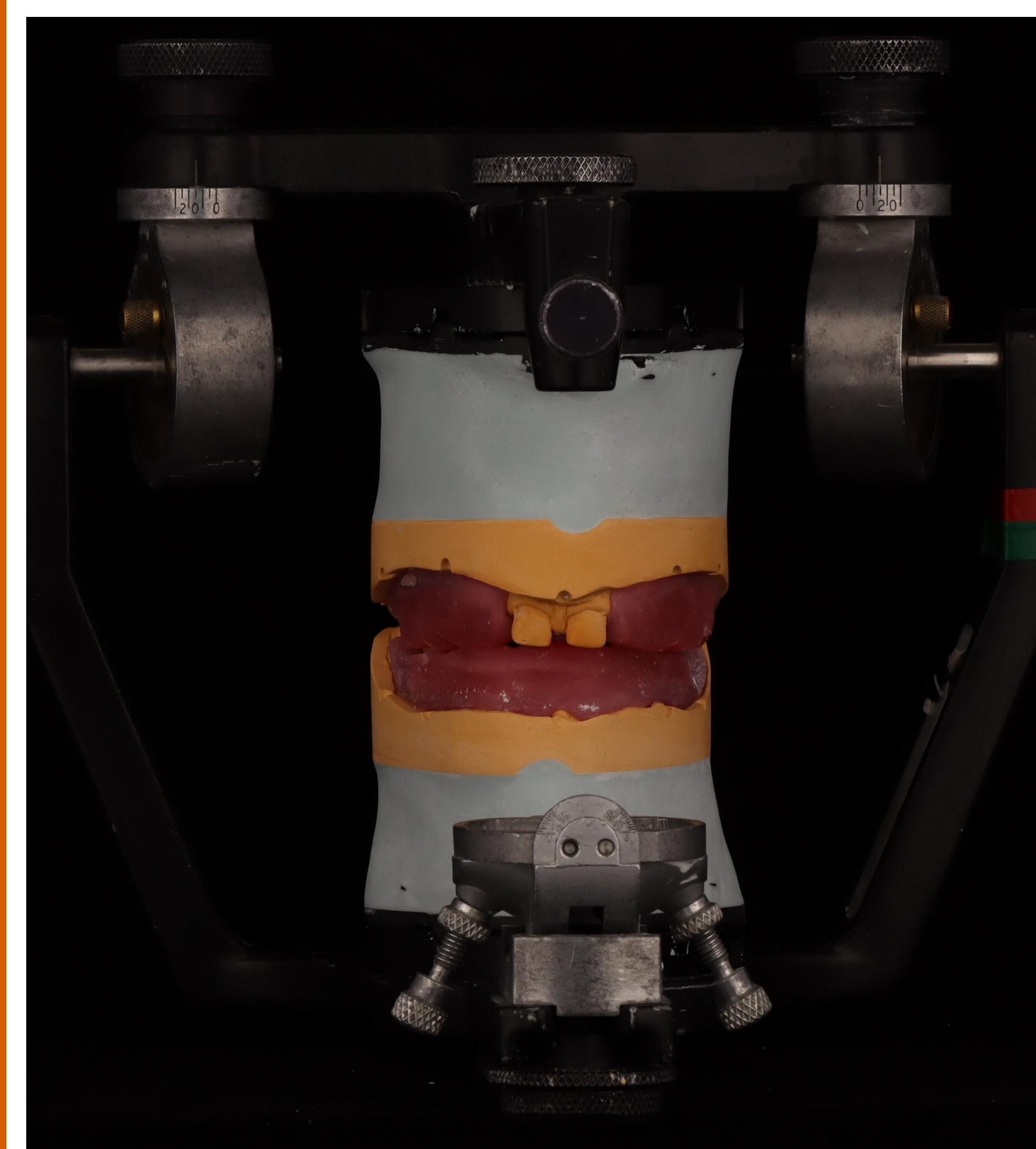
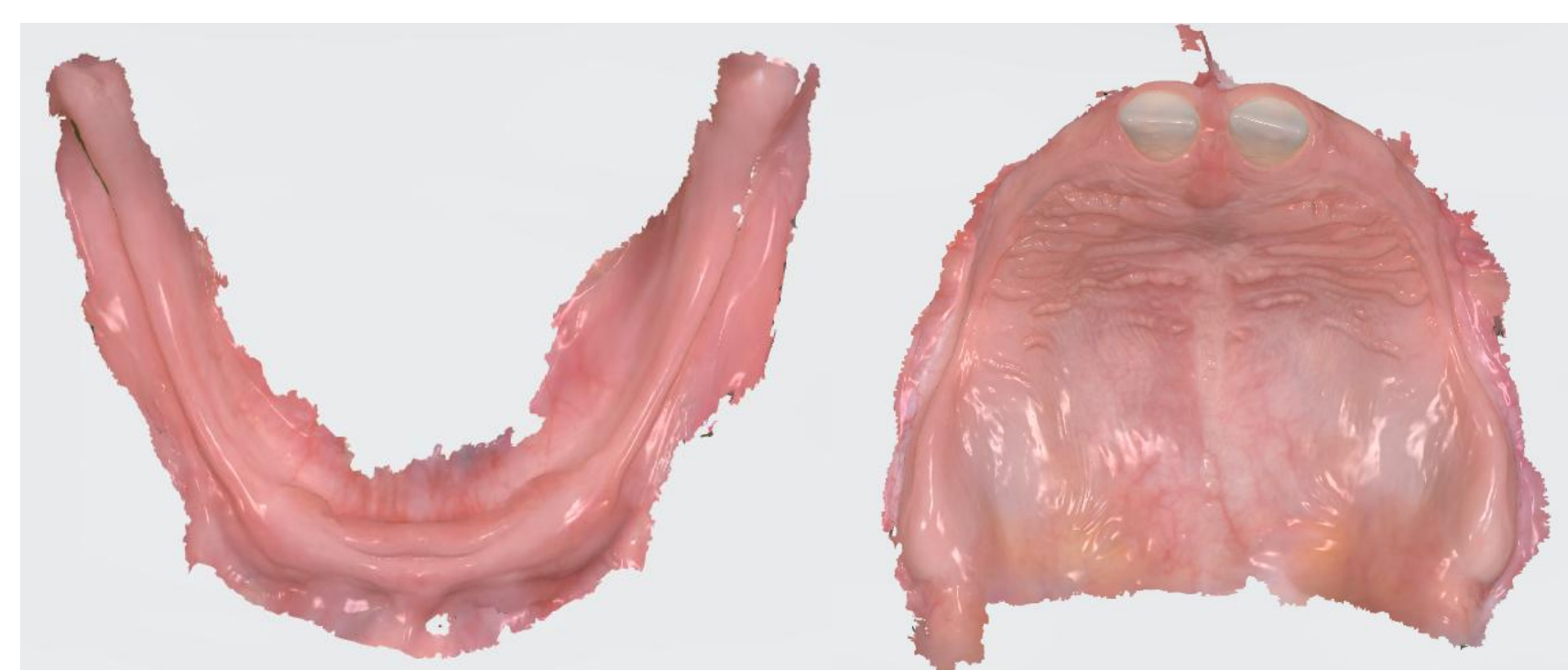
Objectives: Ectodermal dysplasia is a rare genetic condition which ranges in severity and is a result of abnormal development of the ectoderm. There are more than 180 specific types of this disorder which most commonly affects the development of the skin, hair, teeth, nails, and sweat glands. When possible, early prosthetic intervention is recommended to aid in development of speech, food intake, and socialization. The goal of treatment for this individual was to help him in social settings and teach him how to use removable prostheses in preparation for future prosthodontic rehabilitation.

Methods: The patient's preliminary records were taken digitally using a Trios 4 intraoral scanner due to his inhibitory gag reflex. Custom trays were made on the printed casts, and PVS wash final impressions were made. Jaw relation records were taken with wax rims, and the occlusal vertical dimension (OVD) was established by providing 1-2mm interocclusal distance and verifying comfort during swallowing. A pediatric tooth library was created by 3D scanning pediatric typodont teeth, and resin teeth were printed in shade B1 to match his existing restorations. Wax setup was tried-in, and patient and his parents were all pleased with esthetics. Phonetics were assessed as adequate (keeping in mind that his speech is still developing at his age). Wrought wire clasps were added to teeth #E and F, then the maxillary acrylic removable partial denture and mandibular complete denture were processed.



Results: Due to his inhibitory gag reflex and retained #E and F, the patient has poor anatomic expectations for retention and he and his parents were informed on the need for denture adhesive (particularly with maxillary prosthesis). He demonstrated the ability to insert and remove the prostheses on his own and expressed satisfaction with esthetics and speech.

Conclusions: Some case reports have shown that developing a favorable jaw relation at a young age can facilitate definitive rehabilitation in the grown-up patient. Using these prostheses as a preliminary baseline, modifications will be made to the denture bases and tooth positions as he grows to aid in implant planning for future definitive rehabilitation.



References:

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