



Prosthodontic Rehabilitation in a Patient with Hutchinson-Gilford Progeria Syndrome

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Introduction

Hutchinson-Gilford Progeria Syndrome (HGPS) is a rare genetic disorder characterized by appearance of premature aging, craniofacial abnormalities, alopecia, and significant systemic involvement, including cardiovascular compromise.¹⁻³ This case report highlights a medically informed, functionally driven approach to dental rehabilitation in a patient with HGPS.



Fig 1. Maxilla, occlusal view (left). Mandible, occlusal view (right).

Case Description

A 13-year-old female diagnosed with HGPS presented with oligodontia, reduced masticatory function, dental pain, and esthetic dissatisfaction. Clinical examination revealed micrognathia, reduced VDO, partial edentulism, non-restorable teeth, and retained primary teeth.



Fig 2. Maxilla and mandible in maximum intercuspation (left). Extraoral smile (right).



Fig 3. Pre-treatment presentation (left). Patient presentation with new prostheses (right).

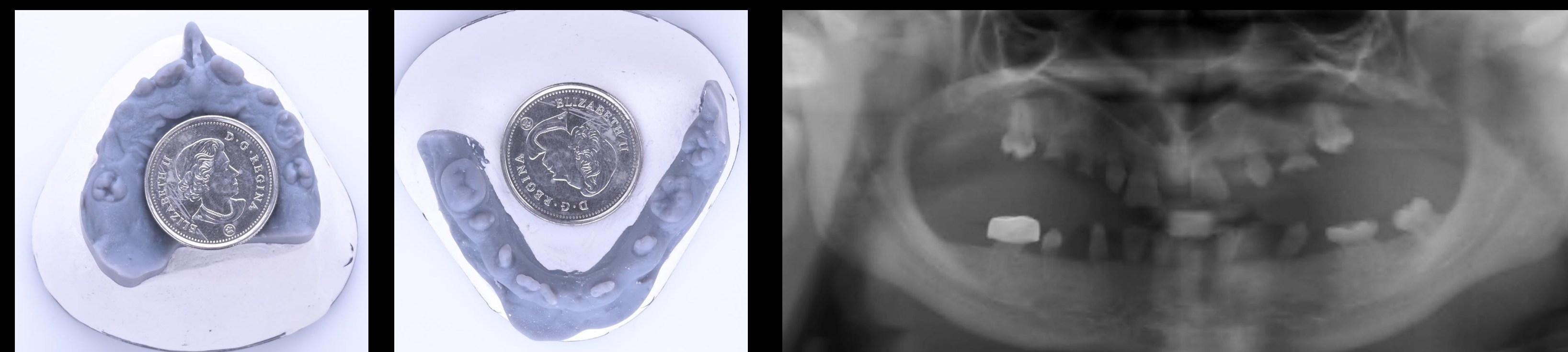


Fig 4. Diagnostic models (left). Pre-treatment panoramic radiograph (right).



Fig 5. Printed prototypes, intraoral (left). Overdentures, extraoral (right).

Technique and Outcome:

Diagnostic work-up guided a conservative prosthodontic plan prioritizing function and tooth preservation. Using digital scans and conventional jaw relations records, printed prototypes were fabricated to test speech and ensure patient comfort. After medical consultation, hopeless teeth were extracted with local anesthesia without epinephrine. Immediate milled overdentures were delivered.



Fig 6. Digital design, intaglio and facial view (left). Milled overdentures (right).

Conclusions

The patient tolerated prosthodontic treatment well, reporting improved mastication, speech, and self-esteem. This treatment underscores the importance of individualized, medically integrated prosthodontic planning in patients with HGPS. Through thoughtful prosthetic design, meaningful functional and esthetic outcomes can be achieved in this medically complex population.

