

# Digital Wax-up for a Patient with Pierre Robin Syndrome

M. Maldonado, C. Córdova, V. Jadue, I. Valdivieso, A. Ormeño  
Postgraduate Programme in Pediatric Dentistry. Faculty of Dentistry, Universidad de los Andes, Chile



Universidad de  
**los Andes**

## Introduction

Pierre Robin is a congenital disorder characterized by micrognathia, glossoptosis and respiratory obstruction, and in some cases it is associated to cleft palate. Dental manifestations are agenesis, microdontia, taurodontism, supernumeraries and dwarf roots. These patients require several medical and dental treatments to improve their health and functions.

## Case Report

- 13-year, 9-month old male patient, Frankl 3 scale
- Pierre Robin and Seckel Syndrome, cleft palate, retinal detachment and GERD.
- Cleft palate Surgery (10-months old) and mandibular distraction (9-months old)
- Permanent dentition, multiple agenesis, generalized dental mobility
- Generalized gingivitis induced by dental biofilm
- Micrognathia and maxillary compression
- Onychophagia and mouth breathing

## Treatment Phases

### 1. Diagnosis and planification



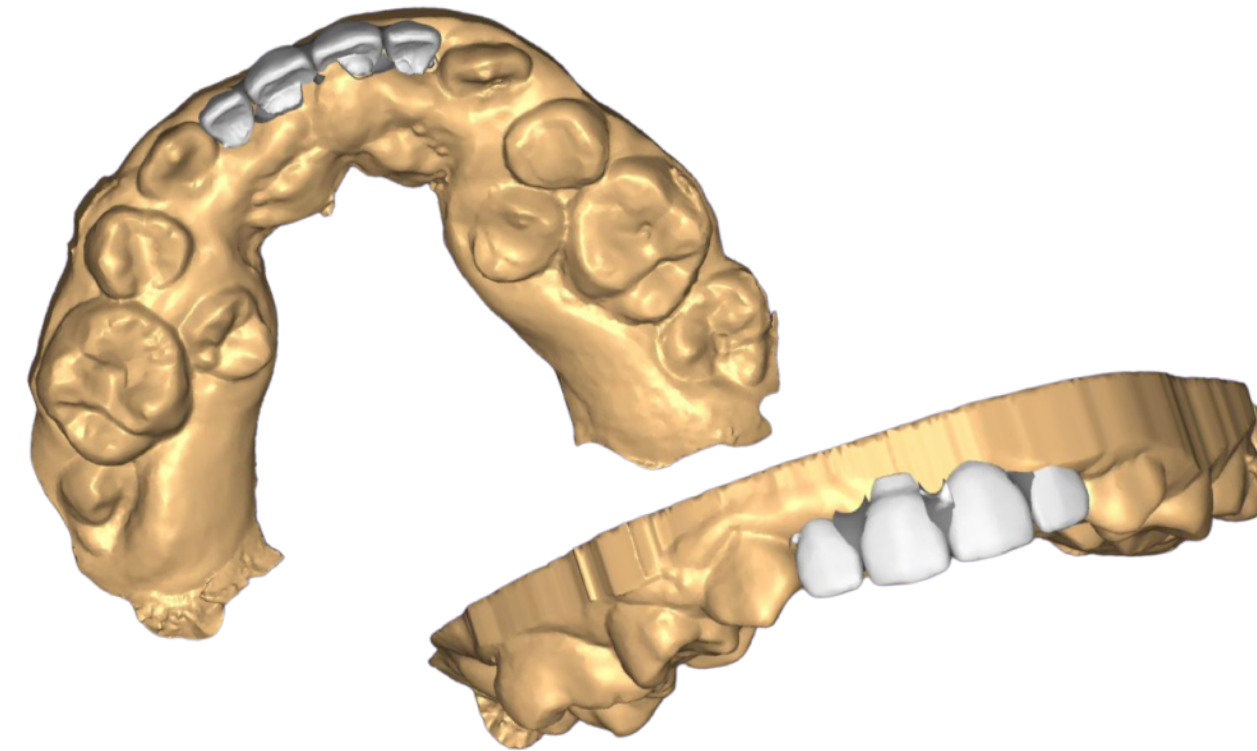
The treatment was divided into five main phases, where in each one of them, preventive procedures were performed, such as prophylaxis, not only to control bacterial plaque but also to achieve an adequate adaptation of the patient.

### 2. Exodontia



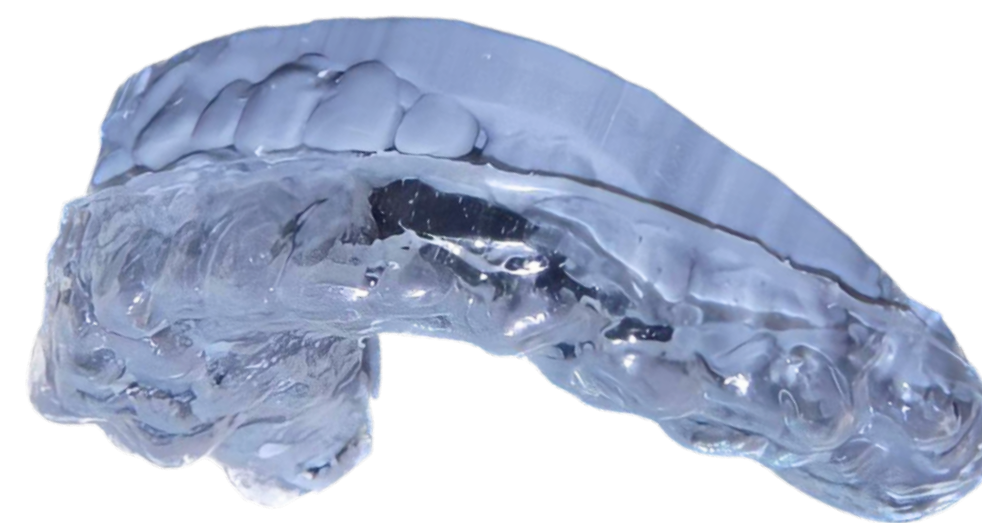
Due to risk of swallowing and mobility of the 1.2-2.2-3.2-4.2 extractions were performed.

### 3. Intraoral scanning and digital wax-up



Scanning and digital wax-up was performed to simulate the missing teeth (1.2-1.1-2.1-2.2). Conventional impressions were discarded since the patient could not stay still for long periods and the adaptation achieved could be lost by this uncomfortable procedure.

### 4. 3D model and retainer



The digital file was sent to the laboratory, they printed the model with 3D technology and with thermoforming technique a retainer was done.

### 5. Composite Resin



The retainer was checked, and adjustments were made. For those teeth designed digitally, composite resin was placed in the spaces where the missing teeth were located, in order to visually restore the teeth in the anterior sector. Subsequent check-ups were made.

## Conclusion

There is a wide range of technology in dentistry that is generally used in adult patients, but these advances can also be used in pediatric patients, such as the use of intraoral scanners to avoid uncomfortable procedures and digital waxing to reduce clinical times. Thanks to this treatment, the patient's self-esteem and communication improved.

## References

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