

Oligodontia: a case report

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Oligodontia is the agenesis of numerous teeth, and is commonly associated with specific syndromes and / or severe systemic abnormalities. In this paper a patient with 14 missing permanent teeth is presented clinically with her conservative and prosthetic treatments.

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INTRODUCTION

Congenital absence of teeth may arise from physical obstruction or disruption of the dental lamina, or from space limitation, functional abnormalities of the dental epithelium or failure of induction of the underlying mesenchyme.¹

Oligodontia is the agenesis of numerous teeth, and is commonly associated with specific syndromes and/or severe systemic abnormalities.^{1,3} Oligodontia can be observed between 0.4% and 0.9% of the population.^{4,5} In oligodontia cases, for aesthetic, phonetic and nutritional reasons, the existing primary teeth should be retained.⁶ The following prosthetic treatment to rehabilitate the alveolar bone development and the vertical dimension, especially for a better mastication function and facial appearance, is of great importance.

In most oligodontia cases, overdentures, which allow the existing teeth to remain and can reorganize the vertical dimension and occlusal relations and aesthetic and phonetic functions, are preferred.⁷

CASE REPORT

Z.K. an 11 years old girl was referred to the Pedodontics Clinic of Istanbul University Dental Faculty for the treatment of her missing teeth and mastication problems. She was born after a normal gestation and her parents were not relatives. The extra-oral examination



Figure 1. Intraoral view of the patient.



Figure 2. Panoramic radiograph.

revealed no anomalies except her decreased vertical dimension.

The clinical intraoral examination revealed that her 16, 26, 36, 42, 46 and 53, 55, 63, 65, 71, 73, 74, 75, 81, 83, 84, 85 numbered teeth were present. The following numbered teeth had crown anomalies, 71, 81 and 42 (Figure 1). All deciduous molars and premolars had caries.

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Figure 3. Intraoral view after composite restorations.



Figure 4. The partial overdenture in place.



Figure 5. Patients smile before the treatment.



Figure 6. Patients smile after the treatment.

The examination of the panoramic radiograph revealed that tooth germs 13, 23, 33, 34, 35, 37, 43, 44, and 47 were present in the jaws and the other germs were missing (Figure 2).

TREATMENT

Carious teeth were restored with composite filling material. Teeth with crown anomalies (71, 81, 42) were also restored with composite to obtain a better outlook (Figure 3). After these restorations, in order to reorganize and correct the occlusal relations and appearance, a partial overdenture prosthesis for the maxilla was fabricated and the vertical dimension was altered (Figures 4, 5, 6).⁸ The patient was motivated for oral and overdenture hygiene and it was decided that the prosthesis would be remade every 6 months or 1-year period to accommodate the growth pattern.

RESULTS AND DISCUSSION

Anomalies of tooth form and number result from abnormal events in the embryological development of teeth.⁹ Brook stated that there is a relationship between hypodontia and microdontia,¹⁰ which was

borne out of this case, too. Otherwise, we thought that the lower central incisors to be deciduous teeth, but they also might be permanent microdontia with crown anomalies. Another possibility for these teeth was that they were 71, 72 but, after the composite restorations, the form of these teeth was more acceptable.

Patients with congenital defects such as partial anodontia, microdontia, cleft palate, etc., need a rather detailed, lengthy and expensive course of treatment. With the advent of the overdenture, a reasonable, relatively fast and inexpensive mode of treatment became possible.⁷

This patient, with 14 missing permanent teeth was restored to function, aesthetics and comfort utilizing this overdenture concept. Also, the developments in adhesive dentistry allow the dentist to correct the crown anomalies quickly and easily. Oligodontia patients need a multidisciplinary treatment and they should be currently in follow up treatment.

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