

Aesthetic Rehabilitation of Patient with Lateral Conical Teeth

Hakan Kamalak*¹, Kübra Tanyol¹

¹(Department, of Restorative Dentistry/ Firat University, Faculty of Dentistry, Turkey)

Abstract: Conical teeth abnormalities are usually seen in the upper incisors. Notwithstanding being seen smaller than normal size, these teeth can be of cylindrical, pin, wedge or barrel-like shapes. In general, environmental and genetic factors take place in the etiology of conical teeth abnormalities. In this case report, radiographic evaluations of the patient with conical teeth abnormalities and the restoration of that case with composite veneer after the diagnosis were discussed.

Keywords: Dental abnormalities, wedge defect, direct composite restorations

I. Introduction

If the deviation is available in the standard tooth sizes, this is defined as anomaly, but while doing this, you need to consider factors such as race and sex. Such anomalies, except the crown, can be seen at the root of the teeth, as well. As this type of anomalies can be seen in only one tooth, they may affect more than one tooth as single-sided or double-sided. If the teeth are smaller than the normal size, this is defined as microdontia (1). Mikrodontia is seen more frequently in women. As microdontia may be like normal teeth, they may also be in peg or conical form. In the researches performed among communities with microdontia and hypodontia, a statistical relationship was found between these two anomalies. In most of these cases, environmental and genetic factors are effective.

II. Case Report

The patient complaining about the discoloration on anterior teeth applied to our clinic owing to being unpleasant with aesthetic appearance (2). The patient was examined intraorally and according to FDI system were tooth decays determined on approximal surfaces of 11th and 22nd tooth and volume defects and malformation were seen on 12th and 22nd teeth. The patient was given the necessary information about treatment options. Vital bleaching and restorative treatment was decided to be applied after assessing the patient's expectations as well as taking financial situation into consideration. Not a sufficient distance was found between the two lateral teeth and incisors after intraoral examination. Lateral teeth of the patients were eroded within physiological limits. The teeth with number 11, 12, 21 and 22 were restored with direct restoration technique using composite material. Then, vital bleaching was applied to the teeth of the patient with number of 13, 21 and 23. (Figure 1)

Materials used in the study was also shown in the table 1.

III. Discussion

The picture that appears in general when such a disorder concerning the volume and the shape of teeth occurs: "Dental crowns affected by the anomaly takes shape resembling a blunt cone and microdontia often accompanies this condition." This disorder called as conical dental anomaly and also considered to be another form of Hypodontia (3) mostly affects maxillary lateral incisors and the third molar teeth. These anomalies can sometimes be seen in the other teeth, as well (4). Depending on the volume and dimension defects of these dentals, it was pointed out that first molar teeth would cause ectopic problems and as a result to early and abnormal resorptions of milk molars or especially to changing place towards palatine during the eruption of the upper canines and the emergence of various orthodontic problems can be considered in relation to these. Therefore, early diagnosis and proper treatment of these patients is important.

IV. Conclusion

Composite veneer restorations applied to the conical teeth were demonstrated to be successful and provide improvement in patients aesthetically, psychologically and functionally. When the patient is provided with the necessary cooperation and regular checks are provided, maintenance of long-term restoration is in question.



Fig. 1. Pre-treatment and post-treatment images of the patient's teeth

	Material Name	Manufacturer	Material type	Matrix type	Filler content	Filler ratio %
1	EstelItte® Sigma Quick	Tokuyama Tokyo, Japan	Submicron filled composite resin	Bis-GMA, TEGDMA	Spherical silica-zirconia filler and silica-zirconia prepolymerized fillers	82
2	EstelItte® Flow Quick	Tokuyama Tokyo, Japan	Low viscosity, medium flow, light cured, radiopaque composite resin	Bisphenol A polyethoxy Methacrylate (Bis-MPEPP), TEGDMA, UDMA	Silica- zirconia filler and silica-titania filler	71
3	Tokuyama Bond Force	Tokuyama Dental, Japan	3D-SR monomer, TEGDMA, BisGMA, HEMA, Glass fillers, Isopropyl alcohol, Photo-initiator, Water	-	-	-
4	Curing Light Lamp	Woodpecker USA	Dental Wireless LED	-	-	-
5	The Phosphoric Acid Gel of %37	Etching Gel, Kerr, USA	-	-	-	-
6	The Finishing Discs	3M ESPE Sof-Lex, U.S.A	-	-	-	-
7	Transparent Matrix Band	Kerr Hawe Stopstrip, China	-	-	-	-

Tab. 1: Materials used in this study

References

- [1]. P.S. Casamassimo, A.J. Nowak, R.L. Ettinger and D.J. Schlenker, An unusual triad: microdontia, taurodontia, and dens invaginatus, *Oral Surgery, Oral Medicine, Oral Pathology*, 45(1), 1978, 107-112.
- [2]. I. Umar and H. Kamalak, Bleaching Discolored Devitalized Teeth with using of new agents, *IOSR Journal of dental and medical sciences*, 13(3), 2014, 79-82.
- [3]. L.B. Pedersen, N. Clausen, H. Schröder, M. Schmidt and S. Poulsen, Microdontia and hypodontia of premolars and permanent molars in childhood cancer survivors after chemotherapy, *Int J Paediatr Dent*, 22(4), 2012, 239-243.
- [4]. A. Singhal, P. Singhal, R. Gupta and K.D. Jarial, True generalized microdontia and hypodontia with spondylo epiphyseal dysplasia, *Case reports in dentistry*, 2013, 112-116.

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