

# Oral Rehabilitation Of A Patient Of Ectodermal Dysplasia With Multidisciplinary Approach

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## Citation

M Rathee, S Luthra, A Tamrakar, R Kundu. *Oral Rehabilitation Of A Patient Of Ectodermal Dysplasia With Multidisciplinary Approach*. The Internet Journal of Family Practice. 2013 Volume 12 Number 1.

## Abstract

Ectodermal dysplasia is a hereditary condition characterized by abnormal development of the structures of ectodermal origin like skin, hair, teeth, sweat glands and nails. Its common oral manifestation is partial absence of teeth. This condition affects the esthetics and functional capability of the patient. Also, it has a devastating effect on the psychology of the patient. Management of this condition has to address all the interdisciplinary aspects to achieve a complete oral rehabilitation. Early and extensive dental treatment is needed because of the absence of multiple deciduous and permanent teeth.

## INTRODUCTION

Ectodermal dysplasia represents a group of inherited conditions in which two or more ectodermally derived anatomic structures fail to develop.<sup>(1)</sup> Depending upon the type of the ectodermal dysplasia, hypoplasia or aplasia of tissues such as skin, hair, nails, teeth or sweat glands may be seen. Ectodermal dysplasia syndromes have been described as a group of disorders with two or more of signs and symptoms: trichodysplasia, dental anomalies, onychodysplasia, and dyshidrosis.<sup>(2)</sup> Congenital malformations of teeth, hairs, nails, or sweat glands may occur either as single isolated malformations or as a part of an ectodermal dysplasia syndrome.<sup>(3)</sup>

The etiopathogenesis is the disturbance in migration, proliferation and differentiation of the neural crest cells and interaction between the epithelial and mesenchymal cells during initiation stage of tooth development.<sup>(4)</sup> Patients suffering from hypodontia may have psychological, esthetic, and functional problems. A number of factors must be taken into account for treatment planning the age of the patient being the most important. Other conditions that must be evaluated include the number and condition of remaining teeth, the number of missing teeth, and presence of carious teeth, condition of supporting tissues, occlusion, and the interocclusal rest space.<sup>(5)</sup>

Hypodontia refers to the developmental absence of one or more teeth in the primary or perma

## CASE REPORT

An 18 year old male presented with a chief complaint of missing teeth and compromised esthetics. There was family history of hypodontia. His maternal grandfather had total anodontia, his mother and brother had partial anodontia/ hypodontia. The patient had his deciduous teeth missing and subsequently the permanent ones. He also reported of having hair fall since last two years. None in father

## DISCUSSION

Akkaya defined oligodontia as the developmental absence of six teeth or more, excluding third molars.<sup>(5)</sup> It can be isolated (Oligodontia-I) or as a part of a syndrome (Oligodontia-S) such as in ectodermal dysplasia.<sup>(9)</sup> Hypodontia can occur in isolated fashion caused by local factors such as early irradiation of the tooth germ, hormonal and metabolic influences, trauma, and osteomyelitis, which can disrupt the normal development of the permanent dentition. Hypodontia may also be a part of more generalized systemic conditions such as ectoder

## CONCLUSION

Oral rehabilitation is complicated if multiple teeth are missing with loss of vertical dimension. A multidisciplinary approach collectively addresses various aspects of rehabilitation of numeric anomalies. Coordinated orthodontic, prosthodontics and oral surgical treatment planning aids in successful esthetic and functional rehabilitation and restoration of health and psychological well being of the patient.

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