

Dental Implant in Children: A Controversy Issue

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Abstract

Some teens lose a number of permanent teeth during exercise or other events. Many of them are unable to maintain their teeth due to lack of fast referral to the dentist or loss of tooth by dental trauma. As a result, the space remains edentulous in their mouths. Some may not have their permanent teeth due to genetic factors involvement. To minimize loss of jaw bones, dental implants are usually the most ideal treatment for these kids. On the other hand, the dental implant needs to be done at certain age. This procedure can be accomplished when the jaws developmental is completed.

Keywords: Jaws developmental; Tooth loss; Edentulous; Dental trauma; Dental implants; Genetic factors; Exercise

Introduction

One of the best methods for treating edentulous is the use of dental implants. In some children, the kid's teeth fall due to congenital diseases or anomalies which cause absence of teeth [1,2. For this reason, the child faces many problems, including losing a beautiful smile and losing self-esteem among peers.

If the child's teeth are naturally lost, it can be easily managed by the pediatric dentist to reduce all the problems that may occur with the loss of teeth for that child. But if the teeth

Preventing oral, dental and gum disease

Prolonged life of these implants

loss is due to congenital diseases, useful approach can be very challengeable.

Growing children often need the rehabilitation of the edentulous area [3]. In spite of children with premature loss of primary teeth may need prosthetic appliances [4], the use of denture can be associated with complications such as secondary caries, uncooperative during the impression, and etc. for some children. Hence, the use of dental implants may be the best treatment for these children; however, using dental implants in children is facing with some restrictions. In another way, treatment through dental implants is challenging before the end of their growth.

Advantages of dental implants in children

Nowadays, dental implants are used to treat children who are suffering from teeth loss. Dental implants in children have some benefits which include:

Increased child self-esteem

Beauty when smiling

Speak correctly when talking

Eating right and lack of malnourishment

Proper Jaw's Growth

Maintaining good oral and dental health

In children whose implants are used as an alternative to their permanent teeth, with the change in the crown of the tooth,

the shape and form of the teeth can be altered and enhance the beauty of the teeth, therefore, there is no need for a complete change of the implant

Age limit for receiving implants

Dental implants are performed only after the jaw growth is completed. If a dental implant is performed before the child's development, it may interfere with the development of the child's jaw, and even it might cause disturbances in the process of other teeth growth (ankylosis) and development [5-9]. In other words, the implant may interfere with the changes related to the normal growth of the alveolar process [6,9].

Naturally, children are different, and each one grows at a certain rate. Therefore, acting on the advice of the dentist is important in determining the timing of implant in children and adolescents. In general, the minimum age for implants is 18 years for men and 14 years for women [10,11]. Although no parent wants to see his child without a tooth, it is best to use an appropriate dental prosthesis to replace missing teeth, at least until complete growth of the jaw.

Despite the vast majority of researchers disagree with implant use in growing children, in two studies, the researchers showed the use of mini implant in children could have some advantages. It can be immediately loaded without invasive surgeries [12-14].

Moreover, in another study, a successful implant prosthetic rehabilitation in a growing patient using mini implants showed this procedure did not interfere with the growth of the maxillary bones [15].

Indications for Implant usage in children and adolescents

Children patients with a cleft of the alveolus and palate who need additional bone grafting surgery [16]

Children who are uncooperative for fabrication and adjustment of the Prosthodontic appliances.

Children and adolescents having Anodontia, Hypodontia, missing teeth or teeth loss as a result of traumatic event [17]

Ectodermal dysplasia children [18]

Contraindications for Implant usage in children and adolescents

Inadequate space for the placement of the implant [6]

Children under age of pubertal stage [10]

Children with pubertal growth spurt [10]

The reason why implants cannot be used in children and adolescents

enucleation stage was thick and easily detachable from the

2. Ghasempour M et al. Multiple Developmental Dental Anomalies in a Non-

bone (Figure 5). Histopathologic analysis demonstrated that the appearance of the wall had completely changed character, with a prominent chronic subepithelial inflammation. Of note, a small fragment of nonkeratinized stratified squamous epithelium was seen, which was consistent with epithelial modulation (Figures 6-8).

Dental events are normal and common during play or teenage activities. If this is a permanent problem, surely there are not many teens and children who are willing to go out with one or more missing teeth and talk to their friends. They may be socially isolated because of "being different". Such a thing is not tolerable for most teens. So what is the recommended replacement therapy for the use of an implant?

Usually, a dentist can place an artificial denture instead of a tooth. Then, after the jaw's development is completed, the implant can be performed. Alternative treatments for replacing the missing teeth in growing individuals should be considered, which may include auto-transplantation [19], resin-bonded bridges [20], and closing the space with an orthodontic appliance [21].

Post-implant care in children

In the same way that oral dental care is essential in natural teeth, the implant also needs to take care of. It is worth mentioning that daily use of toothbrushes and dental floss is used to clean teeth. Make sure the surface of the teeth and surfaces of the implanted teeth are clean. If the kid has any problems, parents should inform the paediatric dentist.

Conclusion

One of the most challenging methods for replacing teeth in a child is dental implant. By implanting, all complications such as deformation of jaws, lack of proper speech, malnutrition due to tooth loss in children may be eliminated. In children due to the fact that the growth time of the permanent teeth is different, it may not be possible to use many dental procedures to maintain or treat of their teeth. Consequently, only dental implants can be used in these children. In other words, a few researches have suggested that the use of the implant in growing patients may have some benefits. On the other hands, some researches indicated that use of implants in children under age of pubertal stage, may interfere with the development of the child's jaw, or causes disturbances in the process of other teeth eruption and development.

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