

Endodontic Implants: Myths And Facts

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Abstract:- Endodontic implants are artificial metallic extensions, which can safely extend out through the apex of the tooth into sound bone. They are helpful in stabilizing periodontally weakened teeth. Mainly advantageous for further prosthetic rehabilitation, they do not enjoy the popularity as thought when introduced. This is especially because of widespread myths and inappropriate case selections.

Keywords:- Endodontic implants, osseointegration, Implantology, MTA, endosseous implant

I. INTRODUCTION

Endodontic implants are artificial metallic extensions, which can safely extend out through the apex of the tooth into sound bone ⁽¹⁾. Endodontic implants increase the root to the crown ratio and stabilize a tooth with weakened support. It serves the patient well and avoids replacement for many years. ⁽²⁾

The major indication for using an endodontic implant were: (a) Periodontal bone loss, particularly the involvement of a single tooth, where extraction and replacement is difficult; (b) a horizontal fracture of a tooth that requires the removal of the apical segment and the remaining coronal portion is too weak to remain due to an unfavorable crown-root ratio; (c) pathological resorption of the root apex due to chronic abscess; and (d) pulpless tooth with unusually short root. ⁽³⁾

Endodontic implants were introduced back in 1960. Endodontic implants enjoyed few successes and many failures. Various reasons for failures include improper case selection, improper use of materials and sealers and poor preparation for implants. Proper case selection had given remarkable long-term success.

Orlay has been among the first to use and advocate endodontic implants. Frank is credited however with standardizing the technique, developing proper instruments and matching implants. ^(1,4)

Frank and Abrams were also able to show that a properly placed endodontic implant was accepted by the apical tissues and that a narrow "collar" of healthy fibrous connective tissue, such as a circular periodontal ligament, surrounded the metal implant, and separated it from alveolar bone. ^(1,5)

Weine and Frank retrospectively revisited their endodontic implants cases placed over a 10 year period. Despite many that did fail, they noted some remarkable long-term success with the technique. The technique to be used in carefully selected cases. ^(1,6)

Apart from proper case selection, the major challenge endodontic implants are facing is various myths that are frequently degrading this novel and reliable technique. Through this article, some of the most common myths are counter-answered by factual explanations.

1) MYTH: Endodontic Implant is an outdated concept.

FACT: Though it is an old concept neither it is not outdated nor obsolete. It is still in use by many Endodontists to save a tooth. Since, indications for implant are very few and if to be used properly only few cases are recommended, hence, the popularity is less. ^(1,2,7)

2)MYTH: It is more or less same as an intracanal post.

FACT: There is a huge difference between intracanal post and Endodontic Implant.⁽⁷⁾

Post- It is used inside canal. It is contraindicated in cases where implant is indicated such as bone loss with associated tooth, open or resorbed apex, mobile teeth etc.

Implant- It is to be used in contact with living tissues and biocompatibility is very important.

3)MYTH: It is not a successful treatment.

FACT: Endodontic Implant has more success rate than Endosseous Implant. It has a success rate of 91% and if used appropriately it is one of the most successful techniques.⁽¹⁾

4)MYTH: Periapical healing is not a point of concern.

FACT: A healthy periapex ensures better healing of bone and can help in osseointegration via primary healing thereby increasing the life and success of implant.^(2,7)

5)MYTH: Since Endodontic Implant is an old concept, in modern Endodontics with the invention of novel materials like MTA, Implants may not go along.

FACT: This is a sheer myth. Newly introduced novel materials can be used very safely as a cement along with the implant and rather enhance the prognosis of the tooth because of additional function of these materials like osseointegration.^(1,8,9)

6)MYTH: Implantology is a budding branch of Dentistry, hence require an expert Implantologist.

FACT: Though Implants belong to a diverse aspect than Endodontics but an endodontic implant is placed within a root canal and since root canal morphology and periapical area is best dealt with an Endodontist, hence, it is appropriate to consult an Endodontist before placing an endodontic implant.^(1,2,7)

7)MYTH: Any Prosthetic rehabilitation is not possible for the tooth with endodontic implant.

FACT: Once the tooth has been stabilized and osseointegration is established between bone and implant, prosthetic or restorative procedures can be carried out.⁽³⁾

8)MYTH: Implant does not communicate with the oral environment, it is difficult to assess prognosis.

FACT: Communication with oral environment may cause failure of implant as there will be enhanced force on the tooth. As Endodontic Implants do not directly communicate with the oral environment their prognosis is better so there is no issue of prognosis assessment.^(1,10)

II. CONCLUSION

The endodontic endosseous implant which is the biocompatible metallic extension of tooth serves many functions of which the basic function is to stabilize the tooth in the arch that can support prosthesis.

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