

WHEN DOES A CHILD NEED ROOT CANAL TREATMENT?

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LETTER TO THE EDITOR

Abstract: *Pulpectomy is a root canal procedure for pulp tissue that is irreversibly inflamed or necrotic. Debridement or removal of the entire pulpal tissue from the coronal and radicular portions of the tooth is followed by irrigation and obturation with a resorbable material. This article discusses the indications of root canal treatment in children.*

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Sir,

Root canal procedure in children involves total removal of pulp tissue from the root canals of teeth and filling them with an inert resorbable material so as to maintain the tooth in the dental arch.

According to the American Academy of Pediatric Dentistry, “Pulpectomy is a root canal procedure for pulp tissue that is irreversibly inflamed or necrotic due to caries or trauma.”¹ Getting root canal treatment in a timely manner is as important for children as it is for elder patients. Root canal procedure in children although have similar indications as in permanent teeth but some age specific conditions occur due to presence of primary teeth. Here we will discuss the importance of pulpectomy and the cases in which it can be indicated for the child.²

i) Pulpal or Periapical Pathology: Pulpal pain is the most common reason for undergoing RCT. It can be due to spontaneous pain following inflammation of pulp via cariogenic bacteria and their toxic products. Pain can also be due to hyperemia or exudate formation following a pulpotomy procedure. Pain of apical periodontitis can be relieved by root canal treatment given the presence of sound alveolar bone support in young permanent teeth.

ii) Traumatic Injuries: An Ellis Class 3 trauma case where there is complicated fracture involving exposure of pulp, pulpectomy can be performed in both vital and non-vital teeth. In non-vital tooth with open apex, an apexification is preformed (in cases of open apex), to

create a calcific barrier at root-end using a calcium hydroxide-CMCP mixture or MTA; just to obturate later with suitable root canal filler.³

iii) Aid in Drainage: Drainage of pus or exudate can be performed from the root canal opening during a pulpectomy.

iv) Avoid extraction of teeth: A pulpectomy can help maintain the space in the dental arch which could have been compromised following an extraction. Moreover, in medical conditions like hemophilia, pulpectomy is preferred over extraction.

v) Orthodontic Purposes: In cases where there is early exfoliation of primary teeth (e.g., FDI: 74) then the carious tooth distal to it (FDI: 75) can be used as an abutment for a band or crown after pulpectomy is performed on it.

vi) Primary tooth without a Successor: Root canal can be performed for a primary tooth without a successor where extraction of that tooth is contraindicated till the bone is ready to receive a dental implant or any other prosthesis.

vii) Esthetic Reasons: Following the necrosis of pulp, the hemoglobin by-products tend to accumulate in hard tissues of tooth and discolor it, thereby hindering esthetics. Timely removal of the pulp can help avoid such complication.

Pulpectomy is an essential part of root canal treatment in primary teeth in order to resolve the associated pain, swelling or sensitivity. Resolution of the pathology post-treatment without any breakdown of supporting tissues adds to the clinical and radiographic success.

REFERENCES

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