EFFECT OF THREE DIFFERENT CORE MATERIALS ON FRACTURE RESISTANCEOF ENDODONTICALLY TREATED PRIMARY MOLARS - AN IN-VITRO STUDY

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Introduction

"Preservation of what is natural" is the theme of present day dentistry. Dental caries is one of the major diseases of the modern civilization and the caries process in children is very fast and rapidly progressing. Thus in children, many teeth are pulpally involved rapidly. Such teeth require endodontic treatment by which they can be saved and restored back to normal function. "To err is human, to forgive is divine" is a maxim that can be justifiably used in endodontic parlance as, "To extract is human, to conserve is divine". But endodontically treated teeth tend to become weak and lose strength and are more susceptible to fracture.[25, 37] This may be attributed to :

- Loss of bulk of tooth structure.
- Loss of moisture/water content of dentin.
- Decrease in dentin elasticity.

The incidence of tooth fracture has been shown to be higher in posterior teeth, particularly mandibular molars.[35]

The subject of studying the strength of teeth following preparation for endodontic treatment is an important one, as it relates directly to their longetivity in oral environment. Conventional endodontic treatment is reported to have 95% success, however the final result of endodontic treatment is