

**COMPARITIVE SEALING ABILITY OF INJECTABLE
THERMOPLASTICISED GUTTA PERCHA,
THERMOCOMPACTION AND LATERAL CONDENSATION
- AN INVITRO STUDY**

CERTIFICATE

*This is to certify that the dissertation entitled "Comparative
Sealing Ability of Injectable Thermoplasticised Gutta percha,
Thermocompaction and Lateral Condensation-An In Vitro
Study" is the bonafide work done by Dr. B. S. Keshava Prasad
inwards M.D.S. Examination in Conservative Dentistry and Endo-*

under my guidance and to my satisfaction.
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Dr. B. S. KESHA PRASAD

Department of Conservative Dentistry & Endodontics
SDM College of Dental Sciences,
Dharwad, Karnataka.

As more and more people are becoming aware that natural dentition are important for function and aesthetics than any artificial teeth, it becomes necessary for the dentist to retain the pulpally involved teeth by endodontic treatment. Endodontic treatment is playing a major role in retaining natural teeth.

The root canal system has many variations in anatomy such as irregularly shaped canals, lateral and accessory canals, anastomoses between canals and a variety of fins. All this leads to a difficulty in preparing the canals to form conducive to complete obturation with filling materials.

Total obturation of the root canal space is the ultimate objective of endodontic treatment procedures. For a successful endodontic treatment, the creation of a hermetic apical seal is necessary. Failures of endodontic treatment are attributed to incomplete obturation of the root canal system. According to Ingle, nearly 60% of the failures seen in Endodontics can be attributed to incomplete obturation.¹⁵ Weine also agrees that the most common cause of failure in endodontics can be attributed to incomplete obturation.³⁴

Complete obturation is necessary to prevent the entry of fluids, bacteria and other toxins into the canal which in turn may lead to inflammatory process.

There are several methods of obturation such as single cone technique, sectional obturation, Lateral condensation, Warm vertical condensation, chemically softened gutta percha obturation, Pastes, Thermocompaction and Injectable Thermoplasticised gutta percha. Techniques for obturation have changed through the years. Every method has certain advantages and disadvantages. Depending upon the case the obturation methods vary.