INTRODUCTION
The principle elements of root waterway sealers are (i) close of voids, patent embellishment trenches, and different foramina, (ii) shaping a bond between the center of the filling material and the root channel divider, and (iii) going about as an oil while encouraging the arrangement of the filling center and burying any outstanding microorganisms. Because of the relative organic and specialized significance of sealers, their substance and physical properties have been the subject of impressive consideration since their underlying improvement in the mid twentieth century. Sealers are arranged by their primary synthetic constituents: zinc oxide eugenol, calcium hydroxide, glass ionomer, silicone, pitch, and bioceramic-based sealers.

CLASSIFICATION
According to Messing
• i. Eugenol.
• ii. Non-eugenol.
• iii. Medicated.

i) Eugenol
   a. Silver containing: Kerr sealer (Ricket 1931)
   b. Silver free cement: Procosol radioopaque Ag cement (Grossman 1936)
   1. Procosol non staining cement (Grossman 1958)
   2. Grossman sealer (Grossman 1974)
   3. Tubliseal (Kerr, 1961)
   4. Wach’s paste (Wach 1925)

ii) Non Eugenol
   • Diaket
   • AH-26
   • Chloropercha + Eucapercha
   • Nogenol
   • Hydron
   • Endofil

 III) Medicated
   • Diaket – A
   • N2
   • Endomethasone
   • SPAD
   • Iodoform paste
   • Riebler’s paste
   • Mynal cement
   • Ca(OH)2 paste (Lanes 1962)
   • Ca(OH)2 paste (Frank, 1962) (Biocolex)
   • Endofloss

II) According to Grossman
   • Zinc oxide resin cements
   • Calcium hydroxide cements.
   • Paraformaldehyde cements.
   • Pastes.

III) According to Clarke
   • Absorbable
   • Non-absorbable

IV) According to Ingle
   • Cements
   • Pastes
   • Plastic

V) According to Harty
   • Zinc oxide eugenol based.
   • Resin cement.
   • Gutta-percha based.
   • Dentin adhesive materials.
   • Materials to which medicaments have been added.

According to Stock
• Zinc oxide eugenol sealers
• Calcium hydroxide based sealers
• Combination of zinc oxide and calcium hydroxide material
• Glass ionomer sealer
• Resin based sealer
• Silicon based sealer

Root waterway sealers have been inspected over various investigations, either by and large or in view of their synthesis, including zinc oxide eugenol, calcium hydroxide, glass ionomer, and tar based sealers. Be that as it may, no broad survey of bioceramic-based sealers has been led. Bioceramic-based sealers have just been accessible for use in endodontics for as long as their years, their ascent to conspicuousness relating to the expanded utilization of bioceramic innovation in the fields of drug and dentistry. Bioceramics are artistic materials planned particularly for medicinal and dental utilize. They incorporate alumina, zirconia, bioactive glass, glass earthenware production, hydroxyapatite, and calcium phosphates. The order of bioceramic materials into bioactive or bioinert materials is a component of their communication with the encompassing living tissue. Bioactive materials, for example, glass and calcium phosphate, cooperate with the encompassing tissue to empower the development of more sturdy tissues. Bioinert materials, for example, zirconia and alumina, deliver a unimportant reaction from the encompassing tissue, viably having no organic or physiological impact. Bioactive materials are additionally arranged by their soundness as degradable or nondegradable. Bioceramics are ordinarily utilized for orthopedic medications, for example, joint or tissue substitutions, and for covering metal inserts to enhance biocompatibility. Also, permeable pottery, for example, calcium phosphate-based materials, have been utilized as bone join substitutes.8,9

Zinc oxide eugenol sealers have a background marked by effective use in pull channel obturation for more than 100 years. It gets resorbed if expelled into the periapical tissue. It has drawn out setting time, shrinkage on setting, high solvency, and can recolor the tooth structure. The benefit of zinc oxide eugenol sealer is its antimicrobial movement and prevalence among clinicians, particularly when utilized with thermoplasticized obturation technique.10 But eugenol is found to spill from zinc oxide eugenol sealers, which is known to prompt lethal impact and decline the transmission in nerve cells. The impact is industrious even in the wake of setting of the material. Zinc oxide eugenol sealer with para-formaldehyde is both cytotoxic and mutagenic. Confined irritation with zinc oxide eugenol sealers has been seen, both in delicate tissue and in the bone.11

Calcium hydroxide sealers display antimicrobial action and have osteogenic-cementogenic potential. The reason for the expansion of calcium hydroxide to root waterway sealers is from perceptions of bases and liners containing the material and their antibacterial and tissue recovering capacity, applied by means of the filtering of calcium and hydroxyl particles to encompassing tissues.12 Solubility is required for arrival of calcium hydroxide and supported movement, consequently it is not reliable with the motivation behind a perfect sealer. Soares et al., watched that trenches overloaded with calcium hydroxide sealers caused interminable provocative response in periapical tissues in puppy's teeth. Sealapex is fundamentally made of calcium hydroxide and has been appeared to be cytotoxic in different investigations, which most likely come about because of parts/added substances, for example, polymethylene methyl salicylate tar and isobutyl salicylate show in Sealapex. Another conceivable clarification for the cytotoxicity of Sealapex may originate from the calcium hydroxide itself, which creates high pH.13,14 Although Obtuseal is already available on the market, there is currently no in vivo model that studies its tissue response in the literature. It is necessary to know if the handicaps can be observed in the in vivo model of research. This sealer contains both epoxy resin and calcium hydroxide. Sealers containing calcium hydroxide will only be biologically active if calcium and hydroxyl ions are released over time.15,16 The diffusion of hydroxyl ions from the root canal sealers increases the pH at the root surface, adjacent to the periodontal tissues, favoring repair. Sealers based on calcium hydroxide are used to enhance the healing process.17

CONCLUSION
Sealers form an important component of the root canal therapy. Success of the endodontic therapy is largely dependent on the sealing capacity and bio-compatibility of the root canal sealers. Hence; endodontists should chose these sealers more wisely in order for obtaining excellent prognosis of endodontic therapy.

REFERENCES
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