The Antibacterial Effect of Camphorated Paramonochlorophenol, Camphorated Phenol and Calcium Hydroxide in the Treatment of Infected Root Canals

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**Aim**
- To evaluate the bactericidal efficacy of Ca(OH)2, camphorated phenol and paramonochlorophenol as root canal dressings.

**Materials & Methods**
- 65 single-rooted teeth with necrotic pulps, intact pulp-chambers & PAR were included in this study.
- At the 1st appointment, canals were enlarged & bacteriological samples taken from the canals.
- Cleaning & shaping was completed & teeth were irrigated with:
  - **Group 1:** 0.5% NaOCl + Ca(OH)2 dressing (20 teeth)
  - **Group 2:** 5% NaOCl + Ca(OH)2 dressing (15 teeth)
  - **Group 3:** 0.5% NaOCl + camphorated phenol dressing (15 teeth)
  - **Group 4:** 0.5% NaOCl + paramonochlorophenol dressing (15 teeth)
- The access cavity was sealed with ZOE cement.
- At the 2nd appointment after:
  - a- 1 months for the Ca(OH)2 groups (group 1 & 2)
  - b- 2 wks. for the camphorated phenol & paramonochlorophenol groups (group 3 & 4)
Bacteriological samples were collected from the root canal, no dressing was applied & access cavity was sealed with ZOE cement.
- In 5 cases treated with Ca(OH)2, root canals were treated with an EDTA for 10min. before ZOE.
- At the 3rd appointment, after 2-4 days, bacteriological samples were taken again.

**Results**
- After treatment with Ca(OH)2 paste, bacteria were recovered from 1/35 treated root canals.
- After use of camphorated phenol or paramonochlorophenol, bacteria were recovered from 10/30 treated root canals.
- The isolated bacteria were predominantly Gram +ve and anaerobic.
- There was no indication that specific bacteria were resistant to the treatment.

**Conclusion**
- Endodontic treatment of infected root canals can be completed in 2 appointments when Ca(OH)2 paste is used as an intra-canal dressing.

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