The aim of this study is to analyse the effectiveness of Peroxygen Powdered System (0.4% peracetic acid) for rapid disinfection of gutta-percha cones.

**INTRODUCTION**

The success of root canal therapy relies on thorough disinfection and the use of aseptic techniques. A contaminated obturating material can reintroduce microorganisms to the root canal system. The Peroxygen Powdered System has been reported to be effective against microorganisms, viruses, etc.

**AIM**

The aim of this study is to analyse the effectiveness of Peroxygen Powdered System (0.4% peracetic acid) for rapid disinfection of gutta-percha cones.

**MATERIALS AND METHODS**

**INNOCULATION OF GUTTA PERCHA CONES WITH ENTEROCOCUS FAECALES**

**GROUP A**
- 3% Sodium Hypochlorite (3% NaOCl)
  - n=22

**GROUP B**
- 2% Chlorhexidine (2% CHX)
  - n=22

**GROUP C**
- Peracetic Acid 0.4% (PAA)
  - n=22

**GROUP D**
- Distilled Water (Positive Control)
  - n=22

**GROUP E**
- Autoclave (Negative Control)
  - n=22

20 cones from each group were treated with above solutions for 5 minutes.

<table>
<thead>
<tr>
<th>GROUP</th>
<th>TEST TUBE</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>+ve -ve +ve -ve +ve -ve +ve -ve</td>
</tr>
<tr>
<td>B</td>
<td>+ve -ve +ve -ve +ve -ve +ve -ve</td>
</tr>
<tr>
<td>C</td>
<td>+ve -ve +ve -ve +ve -ve +ve -ve</td>
</tr>
<tr>
<td>D</td>
<td>+ve -ve +ve -ve +ve -ve +ve -ve</td>
</tr>
<tr>
<td>E</td>
<td>+ve -ve +ve -ve +ve -ve +ve -ve</td>
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</tbody>
</table>

**REFERENCES**


**RESULTS**

Heavy turbidity occurred in all positive controls, and no growth was detected in negative controls. Peroxygen Powdered System containing (0.4% peracetic acid) is as effective as sodium hypochlorite disinfection. However, 2% chlorhexidine showed mild turbidity after 48 hours.

**CONCLUSION**

Peracetic acid 0.4% is as effective as 3% sodium hypochlorite for disinfection of gutta-percha cones.