A Comparative Study between the Efficacy of Tramadol Hydrochloride and Ibuprofen in Control of Pain after Root Canal Therapy

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**Introduction:** The incidence of pain after root canal treatment is one of the main problems for patients and dentists. Many studies have been done on analgesics for alleviating pain after treatment. The purpose of this study was the comparison of analgesic effects of Tramadol and Ibuprofen after root canal treatment.

**Materials & Methods:** In this clinical trial study, 40 patients who had vital one canal teeth were selected randomly. The patients were given one capsule followed by additional one capsule every 6 hours if the pain persisted. The patients were controlled for 3 days. The data were collected through a special chart at time intervals of 12, 24, 48 and 72 hours after treatment and finally were analyzed using Mann-Whitney test with 95% confidence level.

**Results:** The results showed that there was no significant difference between tramadol prescription compared with ibuprofen in 12 hour interval, but in 24, 48 and 72 hours after treatment, the difference was significant and the analgesic effect of tramadol was more than ibuprofen.

**Conclusion:** Tramadol prescription compared with Ibuprofen has greater analgesic effect after root canal treatment in vital teeth after 12 hours and can be more effective than ibuprofen for severe pain relief.

**Key words:** Pain, Tramadol Hydrochloride, Ibuprofen, Root canal therapy.

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**Table:**

<table>
<thead>
<tr>
<th><strong>Group</strong></th>
<th><strong>Mean Pain Scores</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tramadol</td>
<td>2.34</td>
</tr>
<tr>
<td>Ibuprofen</td>
<td>4.32</td>
</tr>
</tbody>
</table>

**Discussion:** The results show that Tramadol is more effective than Ibuprofen in control of pain after root canal treatment, especially after 12 hours. Tramadol was shown to be more effective in reducing pain intensity compared to Ibuprofen. However, further studies are needed to confirm these findings and to determine the optimal dose and duration of treatment.

**Conclusion:** Tramadol prescription compared with ibuprofen in control of pain after root canal treatment is more effective and has a longer duration of action. Therefore, Tramadol can be recommended as an alternative analgesic to ibuprofen in this setting.