**Fig. 1**

**A**

Study design

- **Capsaicin injection**

Start recordings

- VAS Estimations
- Heart rate
- Blood pressure

Pain sensation

5 min

Submaximal masseter muscle contraction (5%, 15%, and 25% MVC)

Submaximal masseter muscle contraction (100%, 5%, 15%, and 25% MVC)

<table>
<thead>
<tr>
<th>5 sec</th>
<th>5 min</th>
<th>30 sec</th>
<th>5 min</th>
<th>30 sec</th>
<th>5 min</th>
<th>30 sec</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVC</td>
<td>Rest</td>
<td>5% MVC</td>
<td>Rest</td>
<td>15% MVC</td>
<td>Rest</td>
<td>25% MVC</td>
</tr>
</tbody>
</table>

**B**

- Capsaicin injection (right masseter muscle)
- Intramuscular blood flow probe (right masseter muscle)
- Surface blood flow and temperature probes (three sites)
- Heart rate (right index finger)
Fig. 2

Right masseter muscle

A

Capsaicin

Blood flow (arbitrary units)

Temperature (°C)

Time (sec)

B

Capsaicin

Left masseter muscle

E

Saline

Right middle finger

C

Capsaicin

F

Saline

* [significance mark]
Fig. 3

A

Before capsaicin

Blood flow (arbitrary units)

Before contraction
During contraction
After contraction

B

After capsaicin
Fig. 4

Blood flow (arbitrary units)

30 sec

5% MVC
15% MVC
25% MVC
Fig. 5

![Graph showing Mean RMS (mV) vs. MVC](image_url)

- **Before pain**
- **After pain**

Mean RMS (mV) values are plotted against MVC (maximum voluntary contraction) levels of 0%, 5%, 15%, and 25%. The graph illustrates the relationship between the mean root mean square (RMS) voltage and MVC, indicating a potential increase in RMS with increasing MVC.
<table>
<thead>
<tr>
<th>Time (0 = injection )</th>
<th>- 60 sec</th>
<th>- 10 sec</th>
<th>+ 300 sec</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sessions</td>
<td>Capsaicin</td>
<td>Saline</td>
</tr>
<tr>
<td>Systolic blood pressure (mmHg)</td>
<td>124 ± 11</td>
<td>115 ± 14</td>
<td>124 ± 11</td>
</tr>
<tr>
<td>Diastolic blood pressure (mmHg)</td>
<td>69 ± 10</td>
<td>67 ± 7</td>
<td>71 ± 5</td>
</tr>
<tr>
<td>Heart rate (beats per min)</td>
<td>66 ± 8</td>
<td>57 ± 2</td>
<td>65 ± 7</td>
</tr>
</tbody>
</table>