Effect of capsaicin-evoked jaw-muscle pain on intramuscular blood-flow.

Arima, Taro; Arendt-Nielsen, Lars; Minagi, Shogo; Svensson, Peter

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Figures&Table.pdf ()
**Fig. 1**

**A**

**Study design**

- **Capsaicin injection**
- **Start recordings**
- **1 min**
- **5 min**
- **Pain sensation**
- **Submaximal masseter muscle contraction (5%, 15%, and 25% MVC)**

**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)

Time (sec)

D

Saline

Temperature (°C)

Left masseter muscle

B

Capsaicin

Blood flow (arbitrary units)

Time (sec)

E

Saline

Temperature (°C)

Right middle finger

C

Capsaicin

Blood flow (arbitrary units)

Time (sec)

F

Saline

Temperature (°C)
Fig. 3

A

Before capsaicin

Blood flow (arbitrary units)

Before contraction
During contraction
After contraction

5% 15% 25% MVC

B

After capsaicin

Blood flow (arbitrary units)

Before contraction
During contraction
After contraction

5% 15% 25%

* Indicates significant difference from baseline.
Fig. 5

Graph showing the relationship between MVC and Mean RMS (mV) before and after pain. The graph includes error bars indicating variability.
Table 1

Blood pressure and heart rate

<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>