INTRAPLAQUE INJECTION OF TIOCOLCHICINE AND
VERAPAMIL IN PEYRONE´S DISEASE PATIENTS: A
PROSPECTIVE RANDOMIZED SINGLE-BLIND
COMPARATIVE STUDY.

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Peyronie’s Disease

- There are few effective treatments for the “acute” phase of PD
- Intralesional Verapamil can be efficacious in some patients
- Oral colchicine has been used with controversial results

Hypothesis

- Colchicine is an oral anti-inflammatory medicine that inhibits collagen secretion and decreases collagen production by increasing the activity of collagenase.

- It has been used for PD with controversial results.

- Will results be better if it is used intralesionally?

- Parenteral colchicine is very painful and toxic.

- We used Tiocolchicine, a colchicine analogue, used as miorelaxant.
Objective

- To compare the effects of tiocolchicine or verapamil intralesional injection on plaque size, sexual function and penile curvature in Peyronie’s Disease (PD) patients.
Material and methods

- Prospective randomized single-blind study
- 25 patients were randomized to receive intralungal tiocolchicine (2mg/ml in 2 ml) or verapamil (2.5mg/ml in 2 ml) injection
- All patients had been suffering from PD for up to 18 months.
- Cases with less than 3-month progression, history of trauma or history of surgical PD correction were excluded.
- Patients were treated weekly in 7 consecutive consultations.
- Outcomes considered were photograph-based measurement of penile curvature during intracavernous drug induced erection, sonographic measurement of plaque size and IIEF (International Index of Erectile Function).
Demographics

- 25 patients were randomized
  - Tiocolchicine – 13 and Verapamil – 12
- Average age: 56.8 years (39 – 79)
- Average time of PD: 9.88 months (2 – 16)
- Position of the plaque
  - Dorsal – 12 / 25 (48%)
  - Ventral – 3 / 25 (12%)
  - Dorso-Lateral – 10 / 25 (40%)
- Previous treatment of PD – 9 / 25 (36%)
Results

- **Penile curvature:**
  - Tiocolchicine: penile curvature improvement ($p=0.019$)
    - Average baseline curvature - 46.7° (25 - 90)
    - Average post treatment curvature – 36.2° (0 – 70)
    - Curvature improved in 9/13 patients (69%)
  - Verapamil: penile curvature improvement ($p=0.012$)
    - Average baseline curvature - 50.4° (25 – 60)
    - Average post treatment curvature – 42.08° (25 – 60)
    - Curvature improved in 8/12 patients (66%)
## Plaque Size

<table>
<thead>
<tr>
<th>Baseline Plaque Size (cm)</th>
<th>Tiocolchicine</th>
<th>Verapamil</th>
<th>Total</th>
<th>Sig. (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1,5</td>
<td>3</td>
<td>23,10%</td>
<td>4</td>
<td>33,30%</td>
</tr>
<tr>
<td>&gt;3</td>
<td>7</td>
<td>53,80%</td>
<td>7</td>
<td>58,30%</td>
</tr>
<tr>
<td>1,5 a 3</td>
<td>3</td>
<td>23,10%</td>
<td>1</td>
<td>8,30%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Final Plaque Size (cm)</th>
<th>Tiocolchicine</th>
<th>Verapamil</th>
<th>Total</th>
<th>Sig. (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1,5</td>
<td>2</td>
<td>15,40%</td>
<td>3</td>
<td>25,00%</td>
</tr>
<tr>
<td>&gt;3</td>
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<td>15,40%</td>
<td>6</td>
<td>50,00%</td>
</tr>
<tr>
<td>1,5 a 3</td>
<td>9</td>
<td>69,20%</td>
<td>3</td>
<td>25,00%</td>
</tr>
</tbody>
</table>
Results

- IIEF-5
  - Tiocolchicine: increase of average score (p=0.23)
    - Average baseline score – 16.69 (0 to 30)
    - Average post treatment score – 20.85 (0 – 30)
    - IIEF-5 improved in 8/13 patients (61.5%)
  - Verapamil: decrease of average score (p=0.58)
    - Average baseline score - 17.50 (1 – 30)
    - Average post treatment score– 16.25 (6 – 27)
    - IIEF-5 improved in 6/12 patients (50%)
# Pain

<table>
<thead>
<tr>
<th>Y/N</th>
<th>Baseline Pain</th>
<th>Final Pain</th>
<th>Total</th>
<th>Sig. (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Tiocolchicine</td>
<td>Verapamil</td>
</tr>
<tr>
<td>N</td>
<td>10</td>
<td>76,90%</td>
<td>7</td>
<td>58,30%</td>
</tr>
<tr>
<td>Y</td>
<td>3</td>
<td>23,10%</td>
<td>5</td>
<td>41,70%</td>
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<tr>
<td>N</td>
<td>10</td>
<td>76,90%</td>
<td>11</td>
<td>91,70%</td>
</tr>
<tr>
<td>Y</td>
<td>3</td>
<td>23,10%</td>
<td>1</td>
<td>8,30%</td>
</tr>
</tbody>
</table>
Results

- There were no adverse events with the intrallesional use of Tiocolchicine and Verapamil
Conclusions

- Tiocolchicine and Verapamil intralesional improved penile curvature in patients with PD.
- Tiocolchicine and verapamil had similar effects on penile curvature.
- No significant adverse effects were observed with intralesional injection of Tiocolchicine and Verapamil.