EFFECTIVENESS OF TRIAMCINOLONE INJECTION IN THE TREATMENT OF MORTON´S NEUROMA

Daniel Sadigursky, Paulo C. de O. Sobrinho, Alex Guedes e Gildásio C. Daltro
NO CONFLICT TO DISCLOSE

Effectiveness of Triamcinolone injection in the treatment of Morton’s Neuroma

Daniel Sadigursky

My disclosure is in the Final AOFAS Mobile App.

I have no potential conflicts with this presentation.
Aim: assess the clinical effectiveness of Triamcinolone injection in the management of Morton’s Metatarsalgia.
Morton’s Neuroma

Degenerative process of the nerve characterised by epineural, perineural and endoneural fibrosis; hyalinisation of the wall of the endoneural vessels; demyelination; endarteritis of surrounding vessels and degeneration of the surrounding fatty tissue.
Methods

- Prospective Cohort randomized study.
- 112 patients with clinical diagnosis of interdigital pain.
- History of interdigital pain, interdigital tenderness/mass, Mulder’s click and the absence of signs to suggest other factors such as capsulitis or stress fractures, etc.
- Plain radiograph of the affected feet was done.
Methods

- Under an aseptic technique, a mixture of 1 ml 2% lidocaine and 20 mg of Triamcinolone Acetonide was injected into the interdigital mass area of 112 feet.

- All patients who had injection were reviewed by the foot and ankle team weekly post injection for one month, and then monthly until six months.
In every consultation, a questionary was applied to evaluate the pain condition and patient satisfaction.

<table>
<thead>
<tr>
<th>The questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preinjection history:</td>
</tr>
<tr>
<td>Level of pre injection pain</td>
</tr>
<tr>
<td>Subjective paresthesia in toes</td>
</tr>
<tr>
<td>Web space swelling</td>
</tr>
<tr>
<td>Limitation/ modification in shoe wear</td>
</tr>
<tr>
<td>Restriction of activity</td>
</tr>
<tr>
<td>Preinjection Examination:</td>
</tr>
<tr>
<td>Web space tenderness</td>
</tr>
<tr>
<td>Mulder's click</td>
</tr>
<tr>
<td>Post injection results:</td>
</tr>
<tr>
<td>Level of post injection pain</td>
</tr>
<tr>
<td>Activity restriction</td>
</tr>
<tr>
<td>Footwear requirements</td>
</tr>
<tr>
<td>Johnson Satisfaction Score:</td>
</tr>
<tr>
<td>Completely satisfied</td>
</tr>
<tr>
<td>Satisfied with minor reservations</td>
</tr>
<tr>
<td>Satisfied with major reservation</td>
</tr>
<tr>
<td>Dissatisfied</td>
</tr>
<tr>
<td>Eventual outcome The need for surgery</td>
</tr>
</tbody>
</table>

*Methods*
Results

- Of the 112 patients in follow up, 22 (19.64%) were male and 90 (80.35%) female, with an average age of 46.8 years (range 19-81).
- No report of any post injection complications such as infection or fat pad atrophy.
- All the patients had reported moderate or severe pain at presentation, in comparison to 45 (40.18%) patients who remained in pain post injection. Sixty seven (59.82%) patients experienced complete pain relief after treatment. Chi square test showed a p value of less than or equal to 0.001, reflecting a significant difference between pain distribution before and after treatment.
- Ninety two (82.14%) patients had no activity limitation after treatment in comparison to 11 (9.82%) at presentation. Statistical analysis, using Chi square test showed a p value of less than or equal to 0.001, reflecting a significant difference.
- Footwear modification was required by 78 (69.64%) patients at presentation, compared to 58 (51.78%) patients at follow-up. Chi square test showed that the difference was not significant, probably because many patients were still using an insole.
Results

• The Satisfaction Score, proposed by Johnson, in order to quantify the degree of patient satisfaction with a procedure, has been accepted as a good method to access the outcome.

• Ninety two (82.14%) patients reported a variable degree of satisfaction. Of those patients, 41 (36.60%) were completely satisfied, 29 (25.89%) patients were satisfied with minor reservations and 22 (19.64%) patients were satisfied with major reservations. Twenty (17.86%) patients were dissatisfied.

• The eventual outcome was measured, in terms of the need for surgical intervention. Twelve (10.71%) patients proceeded to a neurectomy; the remaining patients did not wish to have a surgical intervention – this included the 8 of the 20 patients who had stated they were dissatisfied with their injection.

• After operation, in all cases the histology was said to be compatible with a Morton’s neuroma.
Conclusions

• The eventual outcome has been the need for surgery.

• Out of the 112 patients, only 12 (10.71%) have gone on to have surgery.

• Few patients requested surgery despite the low satisfaction among the two groups of patients. One explanation for this may be that although the patients were “dissatisfied”, their painful symptoms had improved sufficiently to make the condition interfere less with their daily activities.

• It is difficult to comment on how many patient get better without having an active treatment at all.
Conclusions

• A trial period of non operative measures is worth considering, before subjecting patients to surgery.

• Only a few patients in this study demanded surgery after the injection, which supports the role of the Triamcinolone injection for treating interdigital neuralgia.
References


