Coccyx Manipulation Statistics

The statistics from 87 consecutive coccyx and pelvic pain patients treated using manipulation and acupuncture by Dr Michael Durtnall at Sayer Clinic Kensington: London during early 2012
The patient cohort

<table>
<thead>
<tr>
<th>Total (n=87)</th>
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<tbody>
<tr>
<td><strong>male</strong></td>
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<tr>
<td><strong>age</strong></td>
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<tr>
<td><strong>BMI</strong></td>
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<td><strong>Pain</strong></td>
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<tr>
<td><strong>Months since onset</strong></td>
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<tr>
<td><strong>Months to improvement</strong></td>
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<tr>
<td><strong>Improvement</strong></td>
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<tr>
<td><strong>Treatment times to max improvement</strong></td>
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</tbody>
</table>
Age & gender distribution (overall cohort)

Average age: 37
75% female patients
Age & BMI (overall cohort)

No significant correlation between age & BMI
Months since onset (overall cohort)

- 46% of patients come within a year of onset
- 18% of patients come after >3 years of onset
Comparing patients with onset <1 year vs >3 years

- No significant difference in % improvement of patients <1 year since onset when compared to patients >3 years since onset
- No significant difference in months to reach maximum improvement
- No significant difference in treatment times to reach maximum improvement
% Improvement (overall cohort)

- Overall average improvement 73%
- While 69% improved more than 70%
A large proportion of patients (42%) needed 3-5 treatments to reach maximum improvement, while the overall average was 7 treatments to maximum improvement.
Months to Improvement (Overall cohort)
Pain (overall cohort)

69% of patients are in severe pain (pain scale scores 4 & 5)
Trauma (overall cohort)

Clear distinction between a large fraction of patients with severe trauma (37%) and a large proportion of patients with no trauma (38%)
Conclusions
Comparing patients with low vs high improvement
## Descriptives of extreme improvement categories

<table>
<thead>
<tr>
<th></th>
<th>100% imp (n=19)</th>
<th>&lt;50% imp (n=16)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td>63% female (n=12)</td>
<td>75% female (n=12)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>33 (+/- 7) years, 17-45 years</td>
<td>35 (+/- 9) years, Range: 23-53 years</td>
</tr>
<tr>
<td><strong>BMI</strong></td>
<td>22.7 (+/- 3.6), Range: 17.2-29.7</td>
<td>26.2 (+/- 6.3), Range: 19.9-46.1</td>
</tr>
<tr>
<td><strong>Pain</strong></td>
<td>3.79 (+/- 1.08)</td>
<td>4.19 (+/-0.98)</td>
</tr>
<tr>
<td><strong>Months since onset</strong></td>
<td>17 (+/- 21) months, Range: 1-84 months</td>
<td>28 (+/- 29) months, Range: 5-96 months</td>
</tr>
<tr>
<td><strong>Sedentary</strong></td>
<td>2 (+/- 2), Range: 0-5</td>
<td>4 (+/- 1), Range 1-5</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>3.3 (+/- 1.2), Range (1-5)</td>
<td>4.0 (+/- 1.2), Range: 2-5</td>
</tr>
<tr>
<td><strong>Patient motivation</strong></td>
<td>4.3 (+/- 1.2), Range: 1-5</td>
<td>2.1 (+/- 1.6), Range: 0-5</td>
</tr>
<tr>
<td><strong>TTMS to max imp</strong></td>
<td>8 (+/- 5), Range: 2-20</td>
<td>5 (+/- 3), Range: 0-13</td>
</tr>
<tr>
<td><strong>Trauma</strong></td>
<td>3.2 (+/- 2.1), Range: 0-5</td>
<td>2.4 (+/- 2.4), Range: 0-5</td>
</tr>
<tr>
<td><strong>Months to Imp</strong></td>
<td>3.8 (+/- 4.2) months, Range: 0.5-16</td>
<td>2.1 (+/- 1.6) months, Range: 0-7</td>
</tr>
</tbody>
</table>
No significant difference in average age of high (100%) and low (<50%) improvers, BUT significant difference in BMI (p=0.043) of low improvers (average: 26.2) compared to high improvers (average: 22.7)
Pain

Trend to higher pain in low improvers (average: 4.2) vs slightly lower pain in high improvers (average: 3.8)
Strong significant difference ($p=0.001$) in sedentary level of high improvers (average: 2) compared to low improvers (average: 4).
Trend towards higher education in high improvers (average: 4.0) compared to low improvers (average 3.3)
Clear significant difference ($p<0.001$) in patient motivation of high improvers (average: 4.3) compared to low improvers (average: 2.1)
Significant difference in treatment times to maximum improvement in high improvers (average: 8) compared to low improvers (average: 5), but no significant difference in months to reach the maximum improvement in both groups.
Comparing no trauma vs severe trauma patients
### Descriptives no trauma vs severe trauma patients

<table>
<thead>
<tr>
<th></th>
<th>No Trauma (n=33)</th>
<th>Severe Trauma (n=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td>66.7% female</td>
<td>87.5% female</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>36 (+/- 11 years)</td>
<td>35 (+/- 10 Years)</td>
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<tr>
<td></td>
<td>Range: 13-60</td>
<td>Range: 17-57</td>
</tr>
<tr>
<td><strong>BMI</strong></td>
<td>25 (+/- 4)</td>
<td>23 (+/- 5)</td>
</tr>
<tr>
<td></td>
<td>Range: 19-33</td>
<td>Range: 19-46</td>
</tr>
<tr>
<td><strong>Pain</strong></td>
<td>4 (+/- 1)</td>
<td>4 (+/- 1)</td>
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<tr>
<td></td>
<td>Range: 1-5</td>
<td>Range: 2-5</td>
</tr>
<tr>
<td><strong>Months since onset</strong></td>
<td>23 (+/- 38)</td>
<td>24 (+/- 25)</td>
</tr>
<tr>
<td></td>
<td>Range: 1-216</td>
<td>Range: 1-96</td>
</tr>
<tr>
<td><strong>Sedentary</strong></td>
<td>4.1 (+/- 1.4)</td>
<td>2.7 (+/- 1.6)</td>
</tr>
<tr>
<td></td>
<td>Range: 0-5</td>
<td>Range: 0-5</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>3.6 (+/- 1.1)</td>
<td>3.8 (+/- 1.2)</td>
</tr>
<tr>
<td></td>
<td>Range: 1-5</td>
<td>Range: 1-5</td>
</tr>
<tr>
<td><strong>Patient motivation</strong></td>
<td>2.8 (+/- 1.4)</td>
<td>3.6 (+/- 1.6)</td>
</tr>
<tr>
<td></td>
<td>Range: 1-5</td>
<td>Range: 0-5</td>
</tr>
<tr>
<td><strong>Improve</strong></td>
<td>66.5 (+/- 30.1)</td>
<td>71.7% (+/- 28.2%)</td>
</tr>
<tr>
<td></td>
<td>Range: 0-100</td>
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</tr>
<tr>
<td><strong>TTMS to max improvement</strong></td>
<td>5.8 (+/- 3.2)</td>
<td>6.8 (+/- 3.8)</td>
</tr>
<tr>
<td></td>
<td>Range: 1-5</td>
<td>Range: 1-5</td>
</tr>
<tr>
<td><strong>Months to improvement</strong></td>
<td>2.8 (+/- 1.4)</td>
<td>2.8 (+/- 2.6)</td>
</tr>
<tr>
<td></td>
<td>Range: 0-9 months</td>
<td>Range: 0.5 -14</td>
</tr>
</tbody>
</table>
Age

No trauma

- More normal age distribution
- 66.7% are female

Severe Trauma

- 75% of patients with severe trauma are between 20-30 years of age
- 87.5% are female
BMI

No significant difference in BMI between no trauma (average: 25) and severe trauma patients (average: 23)
No significant difference in pain score between patients with no trauma and severe trauma, although a high proportion of the severe trauma patients was also in severe pain (53%) compared to 39% of patients without trauma.
Sedentary

Strong significant difference ($p=0.008$) in sedentary levels between patients with severe trauma (average: 2.7) and no trauma (average: 4.1)
No significant difference in education between patients with no and severe trauma.
Clear trend towards higher patient motivation in the severe trauma group (average: 3.6) compared to the no trauma patient group (average: 2.9), with 68% of severe trauma patients being highly motivated (scores >4) compared to only 30% of non trauma patients.
Number of treatments to maximum improvement & months to maximum improvement

Trend towards more frequent treatments required to achieve maximum improvement in severe trauma patients (average: 6.8) compared to patients without trauma (average: 5.8), no significant difference in time (months) required to achieve maximum improvement.
A smaller proportion of severe trauma patients (9.4%) showed less than 40% improvement compared to 18.2% of patients without trauma that showed less than 40% improvement, similarly 25% of severe trauma patients improved 100% whereas only 12.1% of the patients without trauma recovered fully
Conclusions

Dr JY Maigne found a mild effectiveness - approx 25% - with 3 treatment sessions of intrarectal manipulation in chronic coccydynia in his 2006 paper

COMPARED with:

My RESULTS of 73% of patients improving between 70-100% over an average of less than 7 treatments using specific manipulation, medical acupuncture, physical therapy and robust exercise.

I need to publish a well designed study in SPINE to get the ball rolling internationally to educate and change the worldwide medical approach to mechanical coccyx conditions - effectively to stop seeing it as normal to treat a simple mechanical problem as a depression or pain problem by prescribing drugs to suppress pain and neurological activity which depresses and lead patients to become obese, miserable and destined to become victims who suffer long-term.