Measuring the positive quality impact of embedding osteopaths in a secondary care spinal unit

Understanding the problem

- Chronic spinal pain is a major cause of disability worldwide and is associated with significant economic impact.
- Diagnostic clarity is often difficult.
- Conservative treatments have failed to produce a single, most effective approach. Surgical techniques are unlikely to provide greater benefit and carry a greater risk profile. Therapy is therefore complex and often multimodal.
- Chronic spinal pain often causes patients to be repeat users of primary and secondary care services which is costly for the system.

Therefore, there is an urgent need to better understand chronic spinal pain and advance conservative management in this field.

Aims and objectives

To determine whether inclusion of osteopathic practice in a multimodal NHS service within a secondary care spinal unit (Queen’s Medical Centre, Nottingham (QMC)) is safe, effective and what the patient experience of such interventions is.

Service description

The Spinal Unit at QMC is a recognised national and international referral center for complex spinal pathologies. Many of those attending the unit either do not need or cannot have spine surgery, and therefore require conservative management of their condition.

The centre has been employing osteopaths at consultant level for over 14 years and delivers multimodal, non-pharmacologic care to patients with chronic and complex spinal pain comprising of standard osteopathic manual therapy, rehabilitative exercise and pain neuroscience education.

98.8% of patients have received previous treatment for the presenting complaint, including pain medication (71.3%), exercise therapy (79.5%) and invasive measures (injection and/or radiofrequency ablation) (40.9%). 15.4% of patients have previously undergone spinal surgery. 30.3% of patients are regularly using weak opioid analgesics at presentation and 16.1% of patients are regularly using strong opioids.

Method and approach

6 year data collection using the Spine Tango Conservative registry. A variety of standardised, validated outcome measures were used including numerical pain rating scale (NPRS), Oswestry disability index (ODI), Neck disability Index (NDI) and EQ5D-3L.
Results and evaluation

A significant proportion of patients with chronic spinal pain experiencing a high level of improvement despite the threshold for improvement being set high (50% change).

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean baseline score</th>
<th>Mean change</th>
<th>Patients improving by 50%-100% from baseline (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMI-LBC</td>
<td>5.9</td>
<td>2.1</td>
<td>59 (37.3%)</td>
</tr>
<tr>
<td>COMI-NC</td>
<td>6.2</td>
<td>2.0</td>
<td>18 (31.6%)</td>
</tr>
<tr>
<td>NPRS Low Back</td>
<td>5.8</td>
<td>2.1</td>
<td>72 (45.6%)</td>
</tr>
<tr>
<td>NPRS Leg</td>
<td>4.4</td>
<td>2.0</td>
<td>76 (48.1%)</td>
</tr>
<tr>
<td>NPRS Neck</td>
<td>6.4</td>
<td>2.3</td>
<td>25 (43.9%)</td>
</tr>
<tr>
<td>NPRS Arm</td>
<td>5.0</td>
<td>1.6</td>
<td>24 (42.1%)</td>
</tr>
<tr>
<td>ODI</td>
<td>36.8</td>
<td>10.5</td>
<td>60 (32.1%)</td>
</tr>
<tr>
<td>NDI</td>
<td>44.4</td>
<td>14.5</td>
<td>21 (31.3%)</td>
</tr>
<tr>
<td>EQ5D-3L</td>
<td>0.4</td>
<td>0.2</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 1: outcome results from the QMC osteopathy service

Key learning points

There was clinically significant improvements in pain, function and health related quality of life in this complex patient group. Furthermore:

- It was effective - 83.2% of patients reported that the intervention had ‘helped’ or ‘helped a lot’.
- Patient satisfaction was high - 96.2% of patients were ‘satisfied’ or ‘very satisfied’ with the care they received.
- The intervention was safe - therapeutic complications were rare (1.2%-7%) and there were no serious adverse events.
- It reduced strain on medical and surgical colleagues
- It reduced the need for surgery which would result in higher risk of infection/complication and longer recovery times, as well as being more costly for the system.

The data support the use of osteopaths to deliver a conservative spinal service in this setting. As the NHS reorganises to deliver conservative spinal services in primary care settings, this model can be deployed closer to the community with minimal expenditure.

Plan for spread

Regularly presentations at both scientific and to professional bodies conferences the UK and Europe.

The findings were published in a peer review journal, the European Spine Journal (http://rdcu.be/FYID). Full details of the administration of this data collection project are given in the paper and a previously published article (Morris, Booth & Hegarty, 2016).

Key contacts

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