Cervico-thoracic myofascial pain in whiplash associated disorders: a systematic review

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Background

- NHS ~£8 million /year  
  (Association of British Insurers, 2008)
- WAD research focused on cervical region  
  (Bortsov et al., 2014)
- Thoracic pain prevalence in WAD –
  - Acute - 65%
  - One year - 23%  
  (Hincapie et al., 2010)
- Strain forces on muscles attaching to the thorax/central sensitisation?  
  (Graven-Nielsen et al., 2006; Vasavada et al., 2007)

Aim: to investigate cervico-thoracic myofascial pain in acute and chronic whiplash associated disorders
Methods

- Methodology (CRD), reporting (PRISMA, MOOSE), registered with PROSPERO (ID: CRD42016035483)

- Databases (CINAHL, EMBASE, MEDLINE, ZETOCC, Index to Chiropractic Literature, ChiroAccess and LILACS) (January 2017)

- Reviewers independently
  - assessed eligibility
  - risk of bias - Newcastle Ottawa Scale

- Narrative synthesis

- GRADE - strength of overall body of evidence
## Results

<table>
<thead>
<tr>
<th></th>
<th>Acute WAD (control)</th>
<th>Chronic WAD (control)</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latent MTPS</td>
<td>UT 35% (12%) SCM 52% (22%) Scalenes 47% (15%)</td>
<td></td>
<td>Moderate - Low</td>
</tr>
<tr>
<td>Active MTPS</td>
<td>UT 58% (31%) SCM 44% (23%)</td>
<td></td>
<td>Very Low</td>
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<tr>
<td>MTPS (not specified)</td>
<td></td>
<td>UT 85% (65%) Scal. M. 63% (47%) SCM 51% (41%) Semisp. Cap. 85% (35%)</td>
<td>Very Low</td>
</tr>
<tr>
<td>Myofascial dysfunction</td>
<td></td>
<td>UT 88% Middle Trap. 56% Lower Trap. 12%</td>
<td>Very Low</td>
</tr>
<tr>
<td>Enthesopathy</td>
<td></td>
<td>M and L Trap. 48%</td>
<td>Very Low</td>
</tr>
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</table>
Conclusions/ Implications

- Muscle dysfunction and/or pain post WAD includes muscles inserting to the thorax
- Differences seen between acute and chronic
- Cervico-thoracic myofascial pain could be a consideration when evaluating and managing individuals with WAD