Cost-effectiveness of fatigue management in Crohn’s disease patients

Eight Annual Broad Medical Research Program Investigator Meeting

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Background I – Quality of life

Crohn’s disease (CD) patients suffer from disabling chronic disease:

- to adapt to the disease may cause psychological symptoms
- negatively influences health related quality of life (HRQoL)

Reduced HRQoL results in:

- increased medical consumption
- higher medical costs
- increased work absenteeism

Boonen A. Inflamm Bowel Dis 2002; 8:382-389
Vogelaar L. Abstract Gut, Supplement II, November 2009

Bodger K. Pharmacoeconomics 2002; 20: 639-652
Creed F. Gastroenterology. 2003 Feb;124:303-17
Fatigue is a common symptom in CD patients:

- has a high impact on the HRQoL
- high disability rates
- overall 68% of the patients experienced fatigue
  - 87% of the patients not in remission
  - 54% of the patients in remission

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Creed F. Gastroenterology. 2003 Feb;124:303-17
## Background III – Determinants of fatigue

<table>
<thead>
<tr>
<th></th>
<th>Fatigue patients</th>
<th>Non – fatigue patients</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression (%)</td>
<td>25</td>
<td>2</td>
<td>0.0001</td>
</tr>
<tr>
<td>Anxiety (%)</td>
<td>30</td>
<td>7</td>
<td>0.0001</td>
</tr>
<tr>
<td>Sex (female) (%)</td>
<td>74</td>
<td>26</td>
<td>0.005</td>
</tr>
<tr>
<td>Side - effects of</td>
<td>64</td>
<td>35</td>
<td>0.003</td>
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<tr>
<td>corticosteroids (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harvey – Bradshaw</td>
<td>53</td>
<td>17</td>
<td>0.0001</td>
</tr>
<tr>
<td>(no remission) (%)</td>
<td></td>
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</tbody>
</table>

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Hypothesis:
- Psychological intervention reduces fatigue and thereby improves HRQoL

Aim:
- To assess the feasibility of fatigue coping courses
- To reduce fatigue
- To assess cost-effectiveness
Methods I – outcome measurements

- Fatigue: Checklist individual strength (CIS)

- HRQoL: Inflammatory bowel disease questionnaire (IBDQ), EQ-5D

- Disease activity: Crohn’s disease activity index (CDAI)
Methods II – inclusion criteria

Inclusion criteria:

- age ≥ 18 yr
- remission (CDAI < 150)
- CIS ≥ 35

Exclusion criteria:

- pregnancy
- breastfeeding
- surgery within 3 months prior to this study
- cancer
- other gastrointestinal disorder
- psychiatric disorder
Methods III – coping courses

Two coping courses:

- **Problem Solving Therapy (PST):** long term course (10 sessions)
- **Solution Focused Therapy (SFT):** short term course (5 sessions)
Results I – Inclusion

- 60 CD patients
  - 40 pts screened
  - 20 excluded
    - 10 pts SFT group
      - 7 pts analyzed
    - 10 pts PST group
      - 3 pts analyzed
    - 20 pts control group
      - 10 pts analyzed
Results II – Baseline characteristics

- At baseline: No significant differences between intervention groups and controls
  - Mean age: 32 yr (20-50)
  - Mean fatigue (CIS): 45 (31-56)
  - Mean HRQoL (IBDQ): 174 (142-195)
Results IV – 3 months follow up

Problem Solving Therapy

CIS score

Baseline
After Intervention
Results III – 3 months follow up

Solution Focused Therapy

Quality of life (IBDQ, EQ-5D):
- all subscales showed trends of greater improvement in intervention groups
Conclusions

- Psychological intervention reduced fatigue and increased HRQoL

- SFT (short term course) is feasible at our out-patient clinic
Future plans

- Randomized controlled study using SFT versus Care as Usual and secondly exploration of the pathogenesis of fatigue

- Cost-effectiveness analyzes