Prevalence and severity of symptoms of urinary incontinence (UI) in men and women with chronic obstructive pulmonary disease (COPD)

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1. Hypothesis / aims of the study
To investigate the prevalence of urinary incontinence (UI) and the severity of symptoms in male and female patients with chronic obstructive pulmonary disease (COPD). It was hypothesised that high intra-abdominal peak pressure caused by chronic cough in patients with COPD might be associated with a higher prevalence of UI. The secondary outcome was to evaluate the initiation of adequate treatment in case of UI.

2. Study design, materials and methods
This retrospective study included 115 patients with COPD recruited by a mailing survey and 327 patients with COPD recruited by an online survey. One hundred and thirteen patients, who underwent lung resection because of lung cancer stage I served as a control group.

The presence or absence of UI, type of symptoms of stress urinary incontinence (SUI), urge urinary incontinence (UUI) and mixed urinary incontinence (MUI), the Sandvik’s Severity Index (SSI), the International Consultation on Incontinence Questionnaire (ICIQ-UI-SF) and the COPD Assessment Test (CAT) were recorded.

3. Results
Fifty-nine percent (68/115) in the patients with COPD of the mailing survey and 77% (245/327) of the patients with COPD in the online survey reported symptoms of UI compared to 40% (46/113) in the control group. The incidence of UI in the middle aged (41-60 years) was significantly higher in both COPD groups compared to the normal population of another representative survey [1].

Results for different age groups are summarized in table 1. In both COPD groups a relationship was found between the severity of UI and the severity of cough, but not in controls. SSI-scores vs. CAT-scores for the COPD mailing group, the COPD online group, and controls are shown figure 1.

Table 1: Prevalence and incidence of UI in patients with COPD, in the controls and in normal population [1]

<table>
<thead>
<tr>
<th>Age group</th>
<th>COPD Mailing group</th>
<th>COPD Online group</th>
<th>Control group</th>
<th>Normal Population [1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=115</td>
<td>U(%)</td>
<td>U(%)</td>
<td>U(%)</td>
<td>U(%)</td>
</tr>
<tr>
<td>18-40 yrs</td>
<td>22 (20.7)</td>
<td>12 (4.0)</td>
<td>4 (4.1)</td>
<td>41 (4.1)</td>
</tr>
<tr>
<td>41-60 yrs</td>
<td>29 (25.7)</td>
<td>12 (4.0)</td>
<td>4 (4.1)</td>
<td>41 (4.1)</td>
</tr>
<tr>
<td>60+ yrs</td>
<td>39 (34.1)</td>
<td>39 (41.2)</td>
<td>4 (4.1)</td>
<td>41 (4.1)</td>
</tr>
<tr>
<td>Total</td>
<td>68 (99.1)</td>
<td>46 (96.7)</td>
<td>4 (4.1)</td>
<td>254 (77.7)</td>
</tr>
</tbody>
</table>

4. Interpretation of results
The prevalence of UI in patients with COPD is significantly higher compared to controls and published values of a normal population. SUI is the most common finding and the prevalence is surprisingly high in male patients with COPD.

5. Concluding message
Health professionals should be aware of UI as a vastly underreported comorbidity in patients with COPD. Affected patients should be informed about treatment options for UI.

References