Lack of knowledge about symptoms and treatment options 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 symptoms of urinary incontinence (UI) and to evaluate the awareness of treatment in male and female patients with chronic obstructive pulmonary disease (COPD). The objective of this study was to determine the awareness of symptoms of UI and if these gaps would lead to reduced use of treatment options. It was hypothesised that low information level might be associated with diminished initiation of adequate treatment in case of UI.

2. Study design, materials and methods

This cross-sectional study included 115 participants with COPD recruited by a mailing survey and 767 participants with COPD recruited by an online survey. One hundred and thirteen participants, who underwent lung resection because of lung cancer stage I served as control group. The presence or absence of UI, the type of symptoms of stress urinary incontinence (SUI), urge urinary incontinence (UUI) and mixed urinary incontinence (MUI), and the International Consultation on Incontinence Questionnaire (ICIQ-UI-SF) were recorded. Furthermore the awareness and realization of treatment options in case of UI was evaluated.

Table 1: Type of UI in the incontinent participants with COPD and in controls.

		COPD Mailing Group total n=68 (%)	COPD Online Group total n=652 (%)	Control Group total n=44 (%)	Normal German population [1] %
Type of UI	**SUI**	**68/ 46 (67.6)**	**652/ 446 (68.4)**	**44/ 24 (54.5)**	-
	men	43/ 23 (53.5)	223/ 132 (59.2)	14/ 7 (50.0)	12
	women	25/ 23 (92.0)	429/ 314 (73.2)	30/ 17 (56.7)	55
	UUI	**68/ 12 (17.6)**	**652/ 48 (7.4)**	**44/ 4 (9.1)**	-
	men	43/ 10 (23.3)	223/ 30 (13.5)	14/ 3 (21.3)	39
	women	25/ 2 (8.0)	429/ 18 (4.2)	30/ 1 (3.3)	14
	MUI	**68/ 5 (7.4)**	**652/ 123 (18.9)**	**44/ 12 (27.3)**	-
	men	43/ 5 (11.6)	223/ 28 (12.6)	14/ 2 (14.3)	49
	women	25/ 0	429/ 95 (22.1)	30/ 10 (33.3)	31
	others	**68/ (7.4)**	**652/ 35 (5.4)**	**44/ 4 (9.1)**	-
	men	43/ 5 (11.6)	223/ 33 (14.8)	14/ 2 (14.3)	-
	women	25/ 0	429/ 2 (0.5)	30/ 2 (6.7)	-

3. Results

59.1 % (68/115) in the participants with COPD of the mailing survey and 84.9% (652/768) in the participants with COPD of the online survey reported symptoms of UI compared to 38.9% (44/113) in the control group. Stress urinary incontinence (SUI) was the dominant type of UI in both COPD-groups compared to controls and formally published data of normal population [1]. Results for different types of UI are summarized in table 1.

In our study population between 74.2% and 77.9% of the incontinent participants had never seen a doctor because of UI. Fourteen% to 40.9% of the incontinent participants did not consider the symptoms of UI as abnormal. Fifty% to 75.5% of the incontinent participants had never heard about pelvic floor muscle training for prevention and treatment of UI. Only 1.5% to 16.6% of the incontinent participants reported practicing those exercises regularly. Results of the knowledge and use of treatment options are summarized in table 2.

Table 2: Knowledge of incontinence as a disease and use of treatment options in the incontinent participants with COPD and in controls.

		COPD Mailing Group total n=68 (%)	COPD Online Group total n=652 (%)	Control Group total n=44 (%)
Gap in knowledge of presence of UI	Correct positive answer incontinent	68/ 44 (64.7)	652/ 560 (85.9)	44/ 25 (56.8)
	Wrong negative answer	68/ 24 (35.3)	652/ 91 (14.0)	44/ 18 (40.9)
Never seen a doctor because of UI		68/ 53 (77.9)	652/ 486 (74.2)	44/ 34 (77.3)
Never heard about pelvic floor muscle training		68/ 51 (75.0)	652/ 363 (55.7)	44/ 22 (50.0)
Performing regularly pelvic floor muscle training		68/ 1 (1.5)	652/ 108 (16.6)	44/ 7 (15.9)

4. Interpretation of results

UI was very common in men and women with COPD. The dominance of SUI could result from cough related increase in intraabdominal pressure. There was low level of knowledge about treatment options and diminished initiation of adequate treatment in case of UI.

5. Concluding message

Health professionals - pneumonologists and chest physical therapists - should be aware of UI as a vastly underreported comorbidity in patients with COPD. Affected patients should be informed about treatment options for UI, especially about the effective pelvic floor muscle training as first line treatment. This should be part of routine physical examination in health care.

References
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