

LACK OF KNOWLEDGE ABOUT SYMPTOMS AND TREATMENT OPTIONS OF URINARY INCONTINENCE (UI) IN MEN AND WOMEN WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Hypothesis / aims of 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). As for healthy persons, UI could be under-reported by patients with COPD, as they may feel it to be a minor problem. 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.

Study design, materials and methods

This retrospective cohort-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.

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 (female subgroup p= 0,005 resp. 0,002) and formally published data of normal population [1]. Results for different types of UI are summarized in table 1.

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)	-

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 in spite of reporting symptoms of UI. 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 answer	negative	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)

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.

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

1. Sökeland, J, Rübber, H, Schulze, H. (2008): Urologie. 14th Eds. Stuttgart: Thieme.
2. Köhler, B (2011): Harninkontinenz durch chronischen Husten. Med. Review. 6, 13.
3. Köhler, B, Teschler, H (2011): Warum gibt es das Problem der Harninkontinenz bei Patientinnen mit Cystischer Fibrose? Forum Sanitas. 2, 31-33.

Disclosures

Funding: This study was approved by the clinical ethics review board of the Faculty of Medicine of the University of Duisburg-Essen in Germany. This study was funded by AFPR. No conflict of interests. **Clinical Trial:** Yes **Registration Number:** Faculty of Medicine of the University of Duisburg-Essen in Germany.11-4642. Registered in the German Register of Clinical Trials (DRK) S00003315. This study was funded by AFPR. **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Faculty of Medicine of the University of Duisburg-Essen in Germany. **Helsinki:** Yes **Informed Consent:** Yes