Medically unexplained symptoms in later life

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CHAPTER 3

Medically unexplained physical symptoms in elderly people: A pilot study of psychiatric and geriatric characteristics.

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Abstract

Objective – To examine the somatic complaints, functional impairment and psychiatric co-morbidity in elderly patients with medically unexplained symptoms (MUS).

Method – A consecutive case series of 37 patients referred for MUS to a multidisciplinary, outpatient clinic at a secondary care mental health center in the Netherlands. All patients underwent a standardized examination by a geriatrician, psychiatrist and psychologist.

Results – For three patients a somatic explanation was found and in two their symptoms spontaneously resolved before a diagnosis could be made. Of the remaining 32 patients with MUS, depressive disorders were present in 18 (56%), anxiety disorders in 10 (31%) and substance use disorders in 6 (19%). Compared to non-depressed patients with MUS, depressed patients had more severe somatic symptoms, more psychological symptoms, and more functional impairment.

Conclusions – As we found a high co-morbidity with other psychiatric disorders in elderly patients with medically unexplained symptoms, a systematic psychiatric examination should be part of their multidisciplinary assessment.

Introduction

Medically unexplained symptoms (MUS) are usually defined as physical symptoms of which presence, severity or consequences cannot be explained by any detectable physical disorder [1]. A study among general practice visitors showed that 7% of patients aged 65 years or over were suffering from a somatoform disorders versus 22 - 28% of those aged below 65 years [2]. However, in older persons, the diagnosis of MUS is difficult for several reasons. First the increased prevalence of physical morbidity with age will lead to more pathological findings, for which the causal relationship with the presented symptoms has to be evaluated. Secondly, depressed elderly patients more often present only physical symptoms. Despite these difficulties, there are no age-specific DSM-IV criteria for somatoform disorders. These issues may result in underrecognition of somatoform disorders in elderly patients [3].

These difficulties may be overcome by a biopsychosocial approach. For this reason, we started a multidisciplinary outpatient clinic for older patients with medically unexplained symptoms. This report presents the first results with respect to the somatic complaints, functional impairment and psychiatric co-morbidity.

Method

A consecutive case series of patients aged 60 years or over who were referred for MUS to our multidisciplinary outpatient clinic from September 2006 until October 2007. This outpatient clinic was part of a secondary care, old-age psychiatric service of the Nijmegen Mental Health Center.

All patients underwent a standardized examination of a geriatrician (CB), old-age psychiatrist (PH) and clinical psychologist (DvD) within two weeks. The geriatrician performed a full physical examination, ECG, routine blood chemistry and a cognitive screening with the Mini Mental State Examination (MMSE). Psychiatric disorders were assessed according to the criteria of the DSM–IV-TR using the Mini International Neuropsychiatric Interview version 5.0.0 by an old-age psychiatrist (PH) in addition to observer rated psychiatric instruments (see below). Severity of the presenting symptom (visual analog scale (VAS) from 0, no burden, through 100, unbearable symptoms) and its functional limitations were assessed in a clinical interview by a senior clinical psychologist (DvD).

The number and severity of somatic symptoms in the past month was assessed by the well-validated Patient Health Questionnaire somatic symptom severity scale (PHQ-15) [4]. Patients had to report the burden of 15 symptoms that cover 90% of potential somatic symptoms found in patients with somatoform disorders, rated on a three-point scale (no, little or much). The item about menstrual discomfort was omitted. In an adult population, a score of 5, 10, and 15, is used as threshold for mild, medium, and high level of somatisation.

The impact of the MUS on the patients' everyday living was assessed by 7 (of the originally 15) subscales of the Sickness Impact Profile (SIP), i.e. 'household', 'social interaction', 'sleep',

'mobility', 'walking', 'alertness' and 'recreation'. The SIP has been developed to measure behavioural limitations due to physical illness.

General psychopathology was measured by the Symptom Checklist 90 item version (SCL-90), a self-report questionnaire assessing 8 domains of psychological functioning in the past week. The severity of depressive symptoms was measured by the observer-rated Montgomery Asberg Depression Rating Scale (MADRS) and the severity of hypochondriacal beliefs and attitudes with the Whiteley Index, a 14-item self-report questionnaire.

Data are presented as absolute numbers and percentages within groups in case of nominal variables, and for continuous measures as means with standard deviation (SD) or median with interquartile ranges (IQR) for normal and non-normal distributions. Patients with and without depression were compared by chi-square, two-sample t-test or Mann-Whitney U-test.

Results

Forty-eight patients were consecutively referred for MUS, of whom 37 patients gave informed consent. Reasons for refusal were: lack of motivation (n=4), aversion against mental health organization (n=2), hospitalization for an acute disease (n=2), moving homes (n=1), or unknown reasons (n=1). One subject was excluded because of age below 60 years.
Patients had a median age of 75 years (range 60 – 92) and 31/37 (84%) patients were female. Fifteen patients (41%) were married and lived with their partner; the other 22 patients lived alone. The mean MMSE score was 27.5 (SD=2.4).

In three patients, a somatic disorder was found that fully explained their symptoms, namely herpes zoster infection of the cranial nerves combined with pulmonary fibrosis (n=1), a cerebrovascular accident (n=1) and spinal canal stenosis (n=1). A further two patients reported psychosocial problems as their primary complaint. This leaves a total sample of 32 patients, who met DSM-IV criteria for a somatoform disorder: undifferentiated somatoform disorder (n=16), pain disorder (n=8), hypochondriasis (n=4), somatisation disorder (n=1), and a combination of hypochondriasis with a pain disorder (n=3). Fifteen (47%) patients had pathological findings or somatic diseases that partly explained their primary somatic complaint.

Seventeen out of the 32 patients had symptoms for over 5 years; only one patient had symptoms for less than 6 months. Twenty patients reported pain as their primary symptom (head, n=6; whole body, n=4; abdominal, n=4; mouth, n=3; back, n=2; joints, n=1). The other primary complaints were shortness of breath/coughing (n=5), dizziness (n=3), and further dysarthria, paraesthesia, anxiety/loneliness, and fatigue. The mean VAS severity score was 75 (SD=22). The impact on functioning was substantial given the mean scores on the SIP sub scale for social interaction (17, SD=15), sleep (24, SD=20), household activities (18, SD=19), mobility (16, SD=20), walking (11, SD=13), alertness (28, SD=22), and recreation (29, SD=25).

The PHQ-15 (see table 1) showed a medium severity of somatisation with a mean total score of 8.7 (SD=4.1).

TABLE 1 Prevalence of somatic complaints according to the Patient Health Questionnaire (PHQ-15) (n=31).

			Burden	
	Symptom	Prevalence % (n)	Little % (n)	Severe % (n)
1.	Abdominal pain	35 (11)	23 (7)	13 (4)
2.	Back pain	61 (19)	32 (10)	29 (9)
3.	Joint pain	75 (23)	35 (11)	39 (12)
4.	Headache	35 (11)	13 (4)	23 (7)
5.	Chest pain	35 (11)	29 (9)	6 (2)
6.	Dizziness	45 (14)	19 (6)	26 (8)
7.	Syncope	6 (2)	3 (1)	3 (1)
8.	Heart pounding	35 (11)	23 (7)	13 (4)
9.	Shortness of breath	45 (14)	19 (6)	26 (8)
10.	Sexual problems	6 (2)	3 (1)	3 (1)
11.	Intestinal problems	68 (21)	52 (16)	16 (5)
12.	Nausea	42 (13)	19 (6)	22 (7)
13.	Fatigue	52 (16)	29 (9)	23 (7)
14.	Sleeping problems	58 (18)	29 (9)	29 (9)

The mean MADRS score of 12.2 (SD=7.6) indicated mild depressive symptoms, the mean SCL-90 sum score of 171 (SD=46) a moderate level of overall psychopathology, and the mean Whiteley Index of 5.8 (SD=3.9) a moderately high level of hypochondriacal beliefs.
Twenty-two (69%) of the patients diagnosed with a somatoform disorder had one or more co-morbid psychiatric disorder (one, n=11; two, n=8, three, n=3). The most common group of co-morbid disorders were depressive disorders (n=18 (56%): major depressive disorder, n=13; dysthymia, n=5). Depressed patients had a significantly longer duration of psychiatric treatment (Mann-Whitney z= -2.22, p=.026), higher somatic symptom burden (PHQ-15: t= -2.99, df=30, p=.005), higher SCL-90 subscale scores (depression: t= -3.16, df=26, p=.004; anxiety: t= -2.48, df=26, p=.020; somatisation: t= -2.70, df=26, p=.012; insufficiency: t= -2.67 df=26, p=.013; hostility: t= -2.55, df=26, p=.017), and more functional impairment assessed with the SIP (social interactions, t= -3.15, df=28, p=.004; alertness, t= -2.80, df=28, p=.009). (see table 2) Anxiety disorders were present in 10 patients (2 patients had 2 anxiety disorders): generalizedanxiety disorder (n=4), social fobia (n=3), panic disorder (n=3), agoraphobia (n=1), specific phobia (n=1). Finally, 6 patients (19%) met criteria for substance use disorders, i.e. dependence of opioids (n=4), dependence of benzodiazepines (n=1), and finally dependence on an unknown agent (n=1).

Table 2 Comparison of patients with and without a co-morbid mood disorder.

Variables		Mood disorder		
		Yes (n=18)	No (n=14)	Statistics
• Age (years)	mean (SD)	75 (7)	75 (7)	t= -.1, df=30, p=.93
• Female sex	n (%)	15 (83%)	11 (79%)	x^2=0.1, df=1, p=.73
• MMSE	mean (SD)	27.6 (2.6)	27.1 (2.3)	t= -.5, df=27, p=.62
• Duration of psychiatric treatment (yrs)	mean (SD)	6.2 (11.1)	0.2 (0.6)	Z= -2.2, p=.026
• No. of psychotropic drugs in history	mean (SD)	3.1 (2.9)	0.6 (1.4)	Z= -3.4, p=.001
MUS characteristics:				
• Duration of MUS (years)	mean (SD)	14.7 (25.4)	16.6 (29.0)	t=.2, df=30, p=.85
• Intensity primary symptom (VAS)	mean (SD)	81 (16)	63 (29)	t= -1.8, df=18, p=.08
• PHQ-15 sumscore	mean (SD)	10.4 (3.9)	6.5 (3.5)	t= -3.0 df=30, p=.005
• Whiteley Index	mean (SD)	6.8 (4.1)	4.6 (3.2)	t= -1.7, df=30, p=.10
Current psychotropic drug use:				
• Antidepressant	n (%)	8 (44%)	6 (43%)	x^2<.1, df=1, p=.93
• Anxiolytics	n (%)	14 (78%)	8 (57%)	Fisher Exact test, p=.27
• Antipsychotics	n (%)	1 (6%)	1 (7%)	x^2<.1, df=1, p=.85
• Analgetics	n (%)	8 (47%)	3 (21%)	x^2=2.2, df=1, p=.14
Psychological functioning:				
• MADRS sum score	mean (SD)	16.7 (7.0)	6.4 (3.4)	t= -5.0, df=30, p<.001
• SCL-90 sum score	mean (SD)	198.1 (35.6)	141.8 (37.6)	t= -4.0, df=25, p< .001
o Depression	mean (SD)	43.9 (13.6)	28.7 (11.7)	t= -3.2, df=26, p=.004
o Sleep	mean (SD)	9.5 (3.5)	7.9 (4.1)	t= -1.1, df=26, p=.29
o Anxiety	mean (SD)	25.0 (9.2)	17.3 (6.9)	t= -2.5, df=26, p=.020
o Somatisation	mean (SD)	29.6 (7.5)	22.2 (7.1)	t= -2.7, df=26, p=.012
o Agorafobie	mean (SD)	11.9 (5.0)	10.3 (4.6)	t= -.9, df=26, p=.40
o Insufficiency	mean (SD)	19.1 (5.6)	14.1 (3.8)	t= -2.7 df=26, p=.013
o Hostility	mean (SD)	8.7 (3.2)	6.4 (0.9)	t= -2.5, df=26, p=.017
o Interpersonal sensitivity	mean (SD)	28.7 (7.9)	23.5 (7.2)	t= -1.8, df=26, p=.08
Impact on functioning (SIP)				
• social interactions SIP	mean (SD)	23 (16)	8 (8)	t= -3.2, df=28, p=.004
• household activities SIP	mean (SD)	22 (23)	13 (12)	t= -1.4, df=28, p=.17
• sleep SIP	mean (SD)	27 (17)	20 (23)	t= -1.0, df=28, p=.31
• mobility SIP	mean (SD)	19 (19)	13 (22)	t= -.9, df=28, p=.40
• walking SIP	mean (SD)	12 (14)	9 (13)	t= -.6, df=28, p=.55
• alertness SIP	mean (SD)	37 (21)	16 (19)	t= -2.8, df=28, p=.009
• recreation SIP	mean (SD)	37 (25)	20 (21)	t= -1.9, df=27, p=.07

Abbreviations: SD, standard deviation; MUS, medically unexplained symptoms; VAS, visual analog scale; PHQ-15, Patient
Health Questionnaire; MMSE, Mini Mental State Examination; MADRS, Montgomery Asberg Depression Rating Scale; SCL-90, Symptom Checklist-90 item version; SIP, Sickness Impact Profile.

Discussion

To our knowledge this is the first study presenting results of a standardized multidisciplinary examination of elderly patients suffering from MUS. The main finding of our study is the high prevalence of somatoform disorder with psychiatric co-morbidity of depression, anxiety and substance use disorders. For interpretation, several limitations should be acknowledged: the sample size, the multiple comparisons, the cross-sectional nature hampering causal interferences and lack of generalization to other levels of health care and health care systems by describing a secondary care, convenience sample.

Thirty-two (86%) of 37 elderly patients referred with MUS were suffering from a somatoform disorder. In only three patients we found a somatic reason for the complaints. This prevalence rate is quite low and comparable with figures that have been reported for patients referred for conversion [5]. As might have been expected in an elderly population, we found in almost half of the patients (47%) pathological findings that partly explained their primary complaint. Pain was the most common symptom. The severity and presenting physical symptoms as measured with the PHQ are comparable with patients presenting MUS in primary care [6]. In primary care, about a quarter of the patients with MUS met DSM-IV criteria for a somatoform disorder [7]. In our study, nearly all patients met DSM-IV criteria for a somatoform disorder. This is most likely explained by the fact that only patients with persistent symptoms that sustain after the 'wait and see' period will be referred and that in this patient group the burden on patients is large enough to justify classification as a somatoform disorder. The finding of only one case of somatisation disorder is in accordance with the low prevalence of this condition in the general population.

The prevalence of psychiatric co-morbidity was high (overall 69%), particularly for depressive disorders (56%). Similar figures have been reported in primary care [8]. Co-morbid depression was associated with a higher severity of the primary somatic complaint, a higher level of somatisation, and more functional impairments. The recognition of depression often is reduced by a somatic presentation and often leads to the perception of the patient as difficult [9]. Several trials showed that antidepressant drugs are effective in adult patients with MUS. To what extent this effect might be mediated by the reduction of co-morbid depressive symptoms has not been elucidated [10].

We conclude that identifying psychiatric co-morbidity in older patients with medically unexplained symptoms is highly relevant, in addition to attention for the physical causes of the complaints. Therefore, we strongly advocate a standardized multidisciplinary assessment of older patients with MUS.

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