Research Article

The Relationship Between Alexithymia and Depression in Patients with Multiple Sclerosis

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Abstract

Objectives: A number of psychiatric disorders emerge during the disease course in Multiple Sclerosis (MS). Depression being the most reported disorder; up to date studies showed no clear relationship between alexithymia and depression in these patients. The aim of this study is to investigate the relationship between alexithymia and depression in MS.

Methods: 40 patients between ages 18 and 55 admitted to the Neurology Clinic in Okmeydani Training and Research Hospital who were diagnosed with Relapsing Remitting Multiple Sclerosis (RRMS) according to 2010 Mc Donald's criteria and 40 healthy volunteers participated in this study. All subjects had given written consent. Depression and alexithymia status were assessed with Beck Depression Scale (BDS) and Toronto Alexithymia Scale (TAS) respectively.

Results: BDS and TAS scores were found significantly higher in MS group especially in women compared to men (p<0.05). It was also observed that alexithymia levels showed increase with high EDSS scores and longer disease period (p<0.05).

Conclusion: In this study, it was observed that depression and alexithymia were related with MS.

Keywords: Alexithymia, depression, multiple sclerosis

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Multiple Sclerosis (MS) is a chronic, progressive, demyelinating disorder of the Central Nervous System (CNS), seen mostly in young adolescents and early adulthood and it may result in physical disability.[1]

Neuropsychiatric symptoms such as depression, fatigue, anxiety, cognitive impairment and alterations in personality can be seen in MS patients. They are usually seen concomitantly, and it is important to discriminate these symptoms in order to give the appropriate treatment.[1,2] Depression is the most prominent symptom seen in these patients and the prevalence was found to be %30.5 in a recent meta analyses.[2]

There are many studies investigating the role of alexithymia in depression.[3] Although there are several studies reporting a close relationship between alexithymia and depression, there is no clear opinion whether these two are distinctive from one another or overlapping.[3]

Alexithymia means 'Greek a(α-)= absence, inadequacy; lexis(λεξιζ)=-word; thymos (θυμοζ)=feeling'. Sifneos was the first to define alexithymia in patients with psychosomatic disorders. He defined that these patients as patients having difficulty in defining, discriminating and putting their feelings and thoughts in words; had limited fantasy worlds and mostly focused on outer world realities than their own feelings during the therapy. Alexithymia prevalence in multiple sclerosis is not clear since it is mostly seen together with other psychological conditions.[4]

The aim of this study is to investigate the relationship between depression and alexithymia in MS.

Methods

40 patients between ages 18 and 55 who admitted to the Neurology Outpatient Clinic in Okmeydani Training and Research Hospital and were diagnosed with RRMS according to 2010 Mc Donald's criteria and 40 healthy volunteers participated in this study. All subjects were literate and had given written consent. Patients who were not literate, had another diagnosed neurological disease or chronic disease, had a history of psychoactive substance abuse and those diagnosed with any other psychological diseases were excluded from the study. The study was approved by local ethics committee (Protocol no: 48670771-514.10).

Materials

Demographical Data Form: This form includes the demographic data of the patient and the control groups.[5]

Toronto Alexithymia Scale (TAS-20): This self-assessed likert scale which consists of 20 questions each scored between 1-5, investigates the alexithymia levels.[6] TAS-20 total score of 61 or more is evaluated as alexithymia and if less than 61 is evaluated as non-alexithymia. Turkish validation and reliability study were done by Gulec et al.[7] in which the cut off values were defined as 59 and values higher than 59 are considered as alexithymia.

Beck Depression Scale (BDS): This scale is a questionnaire consisting of 21 questions each scored between 0-3. It was developed by Beck et al. originally and Turkish validation and reliability study was done by Hisli et al.[8]

Expanded Disability Status Scale (EDSS): This scale is used to evaluate MS disease disability degrees in 7 different fields (pyramidal, cerebellar, brain stem, sensorial, bowel/urinary system, sight, mental and other functions).[9] The patient is scored between 0-10 and disability increases as the score goes higher.

Statistical Analysis

The collected data were assessed with "SPSS for Windows 17.0". After visual and statistical normal range criteria were tested for suitability; parametric tests were performed. Chi square tests were performed in evaluation of the relationship between categoric variables, and t- test for the evaluation of the differences of the median values of two groups. The data were evaluated as mean and standard deviation. The data in each group were evaluated with Pearson's correlation and p<0.05 is accepted as statistically significant.

Results

This study was conducted on 40 MS patients and 40 healthy subjects. 75% of both groups were women (n=30); and 25% of men (n=10). The mean age of MS group was 41.20±9.07; and the mean age of the control group was 40.32±7.06. There was no statistical difference between the demographic data between the groups (p>0.05). The mean disease duration in MS group was 5.25±3.80 years and the mean EDSS scores were 3.71±1.82 (Table 1).

The mean TAS score in MS group was 60.02±12.35 in our study. Overall 16 patients (40%) got a score of 59 and higher and accepted as alexithymic. TAS score in 5 (12.5%) subjects in the control group were high. TAS scores of women in MS group were significantly higher than the control group (p<0.05). In return TAS scores were found to be higher of men in the control group (p<0.05). TAS scores were found to be higher with higher EDSS scores and longer disease duration. TAS and BDS scores of both groups were shown in Table 2.

Discussion

The prevalence of alexithymia in MS patients were found as 10%-53% in several studies.[10,11] In our study alexithymia in MS patients were found to be 40% as in correlation with previous studies. Accordingly, Chahraoui et al.[12] (2014) found alexithymia ratio in MS patients as 30%. Bodini et al.[13] (2008) reported alexithymia ratio of MS patients as 13.8% in their study of 58 Italian MS patients. On the other hand, alexithymia studies in healthy subjects reported lower ratio of alexithymia (8.1%-10.3%) as of expected. This finding was similar in our study (9.25%).

A number of psychiatric disorders emerge in MS during the disease course in MS. The most reported disorder seen in MS is depression.[2] Up to date studies showed no clear evi-

Table 1. The Demographic Features of MS and control groups

	MS Group		Control Group	
	n	%	n	%
Gender				
Women	30	75	30	75
Men	10	25	10	25
Age (mean±ss)	41.20±9.07		40.32±7.06	
Disease duration	5.25±3.80		-	
EDSS	3.71±1.82		-	

Table 2. TAS and BDS scores of MS and Control Group

	n	MS Group (Mean±SD)	Control Group (mean±SD)	p
TAS Scale				
Women	30	61.50±11.57	42.21±8.24	0.02
Men	10	55.80±14.09	45.21±24	0.04
Beck depression scale				
Women	30	17.96±7.54	10.26±4.02	0.03
Men	10	16.30±9.52	10.10±3.46	0.06

dence of alexithymia and depression relationship. Although there are several studies showing close relationship between these two concepts,[3] on the contrary some studies support the distinctness between them.[14] Honkalampi et al.[3] (2000), found higher alexithymia scores in depressive patients than healthy subjects in their study of 2018 Finn subjects with depression diagnosis. Likewise, Hyunyoung et al.[15] (2012) found similar results in their Korean study. Eboni et al.[16] (2018) also studied 180 Brazilian and found that alexithymia scores were significantly higher in patients suffering from both depression and MS.

Distinctly Murphy et al.[17] (2018), in their study of British patients with depression, found no relationship between alexithymia and depression. Same study showed higher alexithymia scores in patients with both MS and depression.

It is still controversial if these different results derived from these studies executed in different ethnic groups are a characteristic feature of alexithymia or a temporary situation secondary to the psychological stressor factors.[18]

There are various suggested models about the neurobiological aspect of alexithymia. These studies assert the claim of both the role in miscommunication between corpus callosum and frontal lobe disfunction.[19,20] Our high alexithymia scores in MS patients are in accordance with the neurobiological aspect of the disease.

There was no significant difference between the ages of both MS and control groups. Alexithymia scores were higher in women in the MS group and men in the control group. Eboni et al.[16] (2018) found higher alexithymia scores in MS women patients while Levant et al.[21] (2009) found higher alexithymia scores in healthy men. Unlike our study Kuloğlu et al. (2013) found no significant difference between alexithymia scores considering gender differences. The reason for this is probably because of the differences of demographic characteristics of the samples.

Our study showed high alexithymia scores with high EDSS scores in MS patients which is in correlation with Chalah and Ayache (2017) who in their systematical review reported similar results.[10] Unlike Chalah and Ayache (2017) Kuloğlu et al.[22] (2013) found no significant relationship between EDSS and TAS scores which they explained low EDSS scores of the patients enrolled in their study.

Conclusion

There are some limitations of our study. Firstly, because our study was designed as cross sectional it disallows us to reveal a clear relation of causality. Second is the relative small number of our sample group. Studies with larger sample numbers will enable us better to understand the relationship between depression and alexithymia in MS patients.

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