OCCURRENCE OF SEXUAL DYSFUNCTIONS AMONG PATIENTS SUFFERING FROM MULTIPLE SCLEROSIS

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ABSTRACT

It is estimated that 75% of patients suffering from multiple sclerosis (MS) have sexual dysfunctions. Despite frequency of these dysfunctions, the problem is often underestimated in everyday medical practice. The research included 22 patients with MS (14 F, 8 M) treated in Department of Neurology, Medical University of Silesia. The research tool was a standardized MSISQ-19 scale. The scale allows assessing how different signs of MS, in last 6 months, influenced sexual activity and satisfaction. The questionnaire was completed by patients during the treatment twice, a year apart. Statistical analysis was carried out using Statistica 10.0. The mean score MSISQ-19 obtained from patients suffering from MS was 36 (min-19, max-61), after one year follow-up 27 (min-19, max-67). There were no statistically significant differences between the results of scale MSISQ-19 among men and women (>0.05). However, there was a positive correlation between the age of patients and the result I-domain row MSISQ-19 scale (p=0.031, r=0.459). The longer duration of the disease from diagnosis, the higher the total score obtained by patients in MSISQ-19 (p=0.038, r= 0.4458). The duration of the disease correlated positively with the III-domain row MSISQ-19 (p=0.028,cr=0.4689). The age of patients suffering from multiple sclerosis affects the weakening of sexual experience as a result of neurological disorders. Sexual disorders occur equally among men and women. Patients with a longer duration of the disease appear to have greater degree of emotional and social disability that interferes with the sphere of sexuality.

BACKGROUND

Multiple sclerosis (MS) is a chronic demyelinating disease of the central nervous system causing its multifocal damage. The first symptoms of the disease usually appear about 20-40 years of age, more often among women and in the population of northern European countries. It is estimated there are over 2.3 million people suffering from MS worldwide, about 40,000 in Poland and 2,000 new cases in our country each year. Motor symptoms are often accompanied by mental disorders (depression, sleep disorders, anxiety disorders), chronic fatigue syndrome and abnormal sphincter function. Sexual dysfunction (SD) is an important factor causing stress and lowering the quality of life. As assessed, these disorders affect up to 70% of patients with MS [1], and the basis of changes is complicated and multifactorial. SD results from both the direct influence of the disease process on the nervous system and the side effects of treatment, psychological or socio-cultural factors. Despite frequent occurrence, they are rarely reported by patients, and thus ineffectively detected and treated. The most common difficulties among women include: lack of or reduced sexual desire (31.4-41.0%), decreased arousal (33.0-36.2%), reduced vaginal lubrication (33.0-36.2%), inability to achieve orgasm or anorgasmia (37.0-38.3%) [2]. Men most often suffer from erectile dysfunction (70-92%) and ejaculation (68-73%) and inability to achieve orgasm (45-60%) [1]. SD is the cause of frustration and reduced self-esteem, significantly decreasing quality of life and satisfaction with the relationship.

MATERIAL AND METHODS

The study involved patients suffering from MS, treated at the Department of Neurology, K. Gibinski University Clinical Center, Medical University of Silesia in Katowice. We included a group of 22 sexually active patients, 14 women and 8 men, aged 18-54, mean age 36. All patients suffered from relapsing-remitting MS.

Study has been approved by Bioethical Committee of Medical University of Silesia in Katowice, approval no: KNW/0022/KB1/106/11. Patients gave informed consent and were informed that their anonymity should be preserved.

The standardized Sexual Scale in Multiple Sclerosis (MSISQ-19) [3] was used to assess the prevalence of sexual dysfunction in the study group. The permission of Professor Sanders for the use of the scale was obtained. Patients completed the questionnaire twice, with one year interval, during treatment. The MSISQ-19 scale consists of 19 questions, to which the patient answers themselves. It assesses the subjective impact of MS symptoms on sexual activity and satisfaction over the last 6 months. Each question can be answered in the range from 1 to 5 (1-never, 5-always). A minimum of 19 points, a maximum of 95. The scale consists of three domains defining primary, secondary and tertiary SD. Primary disorders result directly from damage to the nervous system. These include erectile and ejaculation dysfunction or reduced vaginal lubrication. Secondary SD such as sphincter dysfunction or chronic fatigue syndrome are secondary changes to neurological disorders indirectly affecting sexual function. The tertiary domain is associated with mental disorders, emotional and social problems.

Statistical analysis was performed using the Statistica 10.0 software.

RESULTS

In one-year observation period there was no worsening of quality of sexual life. Significant differences in average total outcomes of MSISQ-19 scale, among SM patients, have not been found. In first evaluation average total outcome of MSISQ-19 was 36 (min-19, max-61), however after one-year observation it decreased to 27 points (min-19, max-67). Also, there were no differences in quality of sexual life among men and women. MSISQ-19 total outcomes were similar in both groups ($p>0.05$) (Table 1). Among genders statistically significant difference was found only in II domain row in first evaluation ($p=0.049$) (Table 2).

There were observed positive correlation between particular outcomes of MSISQ-19 scale and patients age and disease duration. The longer patient was ill, the higher result of MSISQ-19 scale was, and thus worse quality of sexual life ($p=0.038$, $r=0.4458$) (Figure 1). Study revealed that the age of patients suffering from MS influences weakening of sexual experience because of neurological disorders, which is pictured as positive correlation among age and the scale I-domain outcome ($p=0.031$, $r=0.459$) (Figure 2). Additionally, there was proven that the longer duration of disease cause psychological disorders and social challenges, which are pictured as positive correlation between the duration of disease and III-domain row of scale ($p=0.028$, $r=0.4689$) (Figure 3).

Among different form of treatment used in our clinic (interferon beta-1a, interferon beta-1b, glatiramer acetate, fingolimod, natalizumab), no showed significant influence on outcomes, considering all MSISQ-19 subscales.

Statistical analyzed was carried to evaluate if patients in stable relationship have different results in quality of sexual life than single patients. In this study 65% of respondents have long-term partner. Comparing outcomes of all MSISQ-19 domains between two groups no statistically significant differences were revealed ($p>0.05$).

EDSS scale were used to evaluate physical endurance and in observation period it didn't decrease. Average outcome of EDSS scale at the beginning of the study was 1.5 and it didn't change significantly during study.

DISCUSSION

Sexual disorders are widespread in the MS population and affect 40-80% of women and 50-90% of men, and in 1-2% of patients they are the first symptom of disease [4, 5]. Among women main problems are anorgasmia (72%), decreased sensitivity to stimulation (48%) and lubrication disorders (35%). They also suffer from weakened libido,

dyspareunia, and sensory disorders in the genital area. Men mostly complain of erectile dysfunction (63%), ejaculation dysfunction (50%) and decreased libido (39%) [1, 6, 7, 8, 9]. These disorders, resulting from direct damage to the nervous system, are accompanied by symptoms that impair sexual function such as chronic fatigue syndrome, sphincter dysfunction, spasticity and painful paresthesia [1, 6, 10]. They can hinder intercourse and be a serious psychological barrier that prevents the satisfaction of sexual life [5, 6, 11]. An important element in the pathogenesis of the sexual dysfunction are tertiary disorders including psychological and socio-cultural factors. This group mainly includes: depression, cognitive impairment and loss of own attractiveness developing on the basis of structural brain damage and as a reaction to increasing disability [1, 6, 10]. Many studies confirm a positive correlation between the occurrence of depression and sexual dysfunction, which in part may explain the high prevalence of these disorders among MS patients [2, 7, 8, 12, 13, 14, 15, 16]. In addition, some antidepressants (TCA, SSRI) may negatively affect the sexual function mainly by decreasing libido or reducing the intensity of orgasm [6, 11, 17].

Data of differences in the quality of sexual life among women and men are divergent. Some studies indicate that gender disorders are more common in women [10], others in men [13, 15, 18], while in our study, as in the work of Demirkiran M et al., Stenager E et al. and Tepavcevic DK et al., there were no significant differences in the occurrence of sexual dysfunctions between the genders [16, 19, 20].

During the study, there was no significant deterioration in the quality of sex life. Similar results were presented by Zorzon M et al., who noted a constant rate of people affected by sexual dysfunctions during a 2-year follow-up [21].

There was also no deterioration in physical performance among the patients, which was illustrated by the constant average EDSS score. The lack of correlation between the degree of disability and the occurrence of disorders in the sexual sphere is confirmed by many other authors [12, 13, 17, 22].

A positive correlation was found between the deterioration of the quality of sexual life and the patient's age and duration of the disease. Sexual disorders were more severe in older patients and with longer duration of the disease. Similarly, to the study by Demirkiran M et al., the age correlated with the high results of MSISQ-19 in the first-row domain concerning disorders resulting from the direct impact of the disease on the nervous system [19]. The escalation of sexual dysfunction during the disease is also confirmed by Zaborski et al., Zivadinov R et al. and Demirkiran M et al. [1, 14, 19]. The opposite results are presented in the works of Mattson D et al. and Barak Y et al., who showed no positive correlation between sexual dysfunction and duration of the disease.

Despite such a high prevalence of sexual dysfunctions in the group of MS patients and a strong negative impact on the quality of life, these symptoms are rarely reported by the patients, and what is connected with it, ineffectively treated [5]. A lot of patients have problems with talking about their own sexuality and according to research by Aschka C et al. 48% would like the doctor to start the conversation [23]. On the other hand, many doctors do not initiate discussions about sexual dysfunctions [6]. Because successful sexual life is an important determinant of the quality of life, it is extremely important to recognize the underlying factor of the disease from the early stage of the disease and to implement appropriate treatment [1], regardless of gender or disability.

CONCLUSIONS

Prevalence of sexual disorders is not different significantly among men and women. Age of patients suffering from MS cause weakening of sexual experience as a result of neurological disorders. Among patients with longer disease duration it is found higher degree of emotional and social disability, which influence in sexual sphere. A kind of treatment and being in stable relationship do not significantly influence quality of sexual life.

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ABBREVIATIONS

MS – multiple sclerosis
MSISQ-19 – sexual scale in multiple sclerosis
SD – sexual dysfunction
SSRI – selective serotonin reuptake inhibitor
TCA – tricyclic antidepressant

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TAB. 1. COMPARISON OF RESULTS FROM THE FIRST TEST AND RE-TESTING FOR MSISQ-19 WITH DOMAINS (P<0.005).

SCALE/SUBSCALE	STATISTICAL SIGNIFICANCE
MSISQ19 Total	p=0.305
I-domain row	p=0.379
II-domain row	p=0.225
III-domain row	p=0.485

TAB. 2. DISTRIBUTION OF MSISQ-19 SCALE RESULTS WITH DOMAINS CONSIDERING GENDER.

SCALE/SUBSCALE	FIRST TEST	RETEST
MSISQ19 Total	p=0.229	p=0.778
I-domain row	p=0.391	p=0.886
II-domain row	**p=0.0493**	p=0.858
III-domain row	p=0.523	p=0.821

FIG. 1. ANALYSIS OF NUMBER AND DISTRIBUTION OF THE EXAMINED POPULATION.

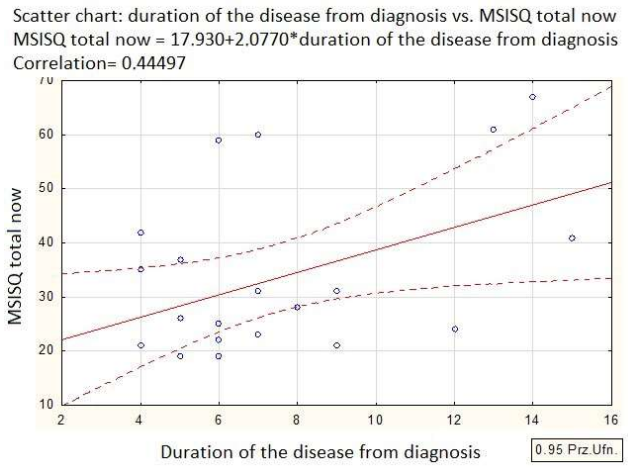
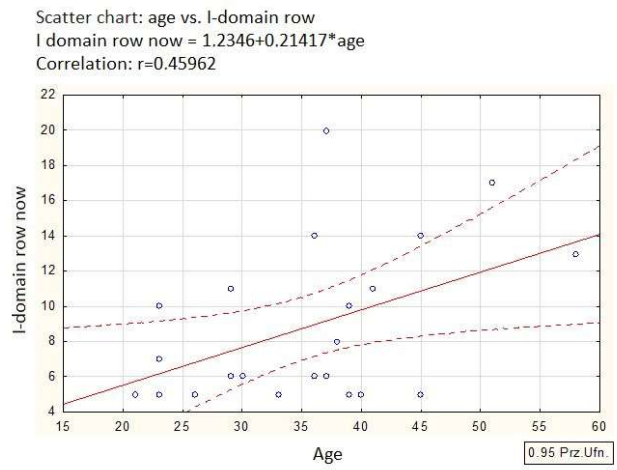


FIG. 2. ANALYSIS OF NUMBER AND DISTRIBUTION OF THE EXAMINED POPULATION.

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