## 422. FEMALE SEXUAL DYSFUNCTION AMONG GREEK WOMEN WITH MULTIPLE SCLEROSIS: CORRELATIONS WITH ORGANIC AND PSYCHOLOGICAL FACTORS

# KONSTANTINIDIS C¹, TZITZIKA M¹, THOMAS C¹, NIKOLIA A¹, SAMARINAS M², KRATIRAS Z², BADIS A¹, SKRIAPAS $K^2$

1. Urology & Neuro-urology Unit, National Rehabilitation Center, Ilion, Athens, Greece 2. Urology Department, General Hospital of Larisa "Koutlibanio", Larisa, Greece

### Introduction

Young women affected by MS are challenged with finding a partner, building relationship, creating families and leading routine sexual activities. There has been less attention paid to frequency and characteristics of sexual complaints among women with MS, in comparison with men. However, in contrast with literature, some studies showed that women with MS experience FSD, more common and with a higher level than male patients. Previous studies found variable relationships between FSD and age, disease duration, disability, disease course, and other symptoms of the disease.

The aim of this study was to determine and evaluate the prevalence of FSD in Greek women with MS and correlate it with organic and psychological factors.

## **Methods**

In this study, we addressed to 267 consecutive women with MS, all patients of outpatients' urology and neuro-urology clinics of the affiliating departments that took part in the study, during the period 02/2016- 03/2017. The study was approved by our Institutions Ethical Committee.

Inclusion criteria were: definite MS and age over 18. Written informed consent was obtained from each of participant. Demographic data included age, marital status, menopause status, the number of children. Additionally, disease-related data such as duration of the disease, Expanded Disability Status Scale (EDSS) and medication of MS was obtained. All participants completed the Greek validated version of the Depression, Anxiety, Stress Scale 21 (DASS-21) questionnaire along with the Greek validated version of Female Sexual Function Inventory (FSFI).

248 out of 267 women completed the questionnaires as asked. 19 women refused to participate in the study.

#### Results

According to FSFI score ( $\leq$ 26), FSD was diagnosed in 160 (64.5%) of women, who had participated in this study. There was no specific correlation of FSD with any medication for the disease. We divided women into two groups according to the presence of FSD. Statistical analysis demonstrated that women with FSD were older (mean age 47.29  $\pm$  7.628 vs. 43.05  $\pm$ 8.783), half of them were in menopause (N=72, 45% in menopause with FSD vs. N=88, 55% women with FSD not in menopause), had longer disease duration (mean duration of MS 13.66  $\pm$ 8.331 vs. 11.62  $\pm$ 6.047) and had higher EDSS score than women without FSD (mean 3.69  $\pm$ 1.3537 vs. 3.03 $\pm$ 1.4986). Figure 1 demonstrates the correlation of Menopause with FSD. The correlation of FSD with EDSS is described in Figure 2.

According to DASS Subscales scores, 42.7% (N=106) of women scored Normal in Depression scale vs. 57.3% (N=142) who scored from Mild to Extremely Severe. 41.9% (N=104) scored Normal in Anxiety Subscale vs. 58.1% (N=144) who had mild to extremely severe anxiety and 50% (N=124) scored normally in Stress Scale vs. the other 50% who had mild to severe stress.

### Interpretation of Results

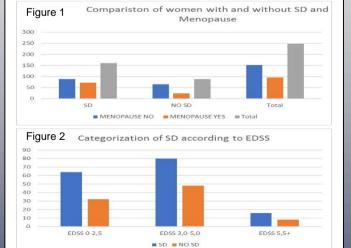
We conducted correlation analysis between clinical variables and DASS scores to see how Depression, Anxiety, and Stress are correlated with age, menopause, duration of the disease and EDSS. It seems that age has a statistically significant positive correlation with depression, anxiety and stress and EDSS has a statistically significant correlation only with anxiety and stress. There was no significant correlation between depression, anxiety, stress and MS duration. As far concerning menopause, we conducted Pearson Chi-Square analysis and found that from the 96 women of the sample who were in menopause, 41.7% of them had normal depression score vs. 58.3% who had from mild to extremely severe depression, 45.8% had normal score in anxiety and in stress vs. 54.2% who scored from mild to extremely severe and 45.8%.

The correlation analysis between clinical variables and FSFI subscales scores showed that age had a significant negative correlation with all subscales of the FSFI. Additionally, there was no significant correlation in any FSFI subscale with duration of the disease. Correlation of EDSS and FSFI scores found to be statistically significant with a negative correlation in all Subscales apart from the Satisfaction subscale.

Finally, we conducted a correlation analysis between FSFI scores and DASS scores in order to investigate the way that sexual problems correlate with depression, anxiety, and stress in our patients. There were significant correlations in Desire and Arousal dysfunction with Depression, Anxiety and Stress and in Lubrication domain with Anxiety and Stress.

## Conclusions

FSD is common among Greek female patients, it is influenced by the age, the severity of the disease and the co-existence of depression anxiety and stress.



#### References

Ashtari F, Rezvani R, Afshar H. Sexual dysfunction in women with multiple sclerosis: Dimensions and contributory factors. J Res Med Sci. 2014 Mar;19(3):228-33.

Tzortzis V, Skriapas K, Hadjigeorgiou G, Mitsogiannis I, Aggelakis K, Gravas S, et al. Sexual dysfunction in newly diagnosed multiple sclerosis women. Mult Scler. 2008 May; 14(4):561-3. doi: 10.1177/13524585080140040901.