Prevalence of Self-Reported Sexual Dysfunction in Neuromyelitis Optica Spectrum Disorder

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BACKGROUND

Sexual dysfunction in Multiple Sclerosis (MS) has been estimated as high as 63% with a male predominance.

We expected a higher prevalence in patients with Neuromyelitis Optica Spectrum Disorder (NMOSD) due to associated spinal cord involvement.

Studies have described a significant impact on quality of life.

Use of a questionnaire will open the discussion for better ways to assess the impact and physiological implications of sexual dysfunction symptoms in NMOSD.

OBJECTIVE

Determine the prevalence of patient self-reported sexual dysfunction related symptoms using the MSISQ-19 as a screening tool in subjects with NMOSD and MS to increase awareness of this comorbidity among providers.

METHODS

Descriptive, questionnaire based cross-sectional study.

A total of 35 patients with NMOSD and MS were enrolled in each group.

The Multiple Sclerosis Intimacy and Sexuality Questionnaire-19 (MSISQ-19) was administered during patient follow-up clinic visit to determine the patient’s perceived sexual dysfunction.

Demographic data and Expanded Disability Status Scale (EDSS) score were obtained.

RESULTS

Figure 1: Multiple Sclerosis Intimacy and Sexuality Questionnaire

Over the last 6 months, the following symptoms have interfered with my sexual activity or satisfaction:

1. Muscle tightness or spasms in my arms, legs, or body
2. Bladder or urinary symptoms
3. Bowel symptoms
4. Feelings of dependency because of MS
5. Tremors or shaking in my hands or body
6. Pain, burning, or discomfort in my body
7. Feeling that my body is less attractive
8. Problems moving my body that way I want during sexual activity
9. Feeling less masculine or feminine due to MS
10. Problems with concentration, memory, or thinking
11. Exacerbation or significant worsening of my MS
12. Less feeling or numbness in my genitals
13. Fear of being rejected sexually because of MS
14. Worries about sexually satisfying my partner
15. Feeling less confident about my sexuality due to MS
16. Lack of sexual interest or desire
17. Less intense or pleasurable orgasms or climaxes
18. Takes too long to orgasm or climax
19. Inadequate vaginal wetness or lubrication (women)/difficulty getting or keeping a satisfactory erection (men)

Rating:
1 = Never
2 = Rarely
3 = Occasionally
4 = Almost Always
5 = Always

A positive questionnaire is a score higher than 4 in any question.

Positive questionnaire:

NMOSD (n=35)

MS (n=35)

1. Muscle tightness or spasms
   - 23%
   - 31%

2. Bladder or urinary symptoms
   - 20%
   - 22%

3. Bowel symptoms
   - 23%
   - 28%

4. Feelings of dependency
   - 20%
   - 22%

5. Tremors or shaking
   - 20%
   - 22%

6. Pain, burning
   - 20%
   - 22%

7. Less attractive
   - 23%
   - 22%

8. Problems moving body
   - 20%
   - 22%

9. Feeling less masculine
   - 23%
   - 22%

10. Problems with concentration
    - 20%
    - 22%

11. Exacerbation of MS
    - 23%
    - 22%

12. Less feeling in genitals
    - 23%
    - 22%

13. Fear of rejection
    - 23%
    - 22%

14. Worries about satisfaction
    - 23%
    - 22%

15. Less confidence
    - 23%
    - 22%

16. Lack of interest
    - 23%
    - 22%

17. Less intense orgasms
    - 23%
    - 22%

18. Takes too long to climax
    - 23%
    - 22%

19. Inadequate wetness
    - 23%
    - 22%

Comparison between questionnaire results in NMOSD vs. MS

Figure 2:

<table>
<thead>
<tr>
<th>Question</th>
<th>NMOSD</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscle tightness</td>
<td>23%</td>
<td>31%</td>
</tr>
<tr>
<td>Bladder symptoms</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Bowel symptoms</td>
<td>23%</td>
<td>28%</td>
</tr>
<tr>
<td>Dependency</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Tremors</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Pain</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Less attractive</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Problems moving</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Feeling less</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Problems with</td>
<td>20%</td>
<td>22%</td>
</tr>
<tr>
<td>Exacerbation</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Less feeling</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Fear of rejection</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Worries</td>
<td>23%</td>
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<tr>
<td>Less confidence</td>
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<td>22%</td>
</tr>
<tr>
<td>Lack of interest</td>
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<td>22%</td>
</tr>
<tr>
<td>Less intense</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Takes too long</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Inadequate</td>
<td>23%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Comparison between causes of sexual dysfunction

Figure 3:

<table>
<thead>
<tr>
<th>Cause</th>
<th>NMOSD</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problems with concentration</td>
<td>60%</td>
<td>59%</td>
</tr>
<tr>
<td>Memory and thinking</td>
<td>90%</td>
<td>73%</td>
</tr>
<tr>
<td>Muscle tightness or spasms</td>
<td>65%</td>
<td>55%</td>
</tr>
<tr>
<td>Feelings of dependency</td>
<td>66%</td>
<td>59%</td>
</tr>
</tbody>
</table>

CONCLUSIONS

The most frequently reported symptom in both groups was “problems with concentration, memory and thinking”.

The most frequently reported symptoms in NMOSD were:

#6: Pain, burning or discomfort
#1: Muscle tightness or spasms
#4: Feelings of dependency

26% of patients in the NMOSD group did not complete the questionnaire while only 9% in the MS group did not.

There is a similar prevalence of patient self-reported sexual dysfunction related symptoms in NMOSD and MS.

Recognition of sexual dysfunction in patients with NMOSD may have a significant impact on their quality of life.

The Multiple Sclerosis Intimacy and Sexuality Questionnaire-19 (MSISQ-19) may be an appropriate and useful screening tool for early detection of sexual dysfunction symptoms in NMOSD.