Introduction and Purpose

Primary headaches can occur as a comorbid condition in patients with multiple sclerosis (MS). The prevalence of headaches in MS individuals has been reported to be greater than 50%. While tension-type headaches are more common in the general population, migraine is more prevalent in MS patients. Headaches are associated with poorer quality of life measures and influence both physical and social quality of life outcomes in the MS population.

Within the comprehensive treatment model of MS, great emphasis is placed on improving quality of life. Identifying and properly treating headaches is important within this approach, and is within the practice scope of neurologists, the main healthcare providers for patients with MS.

Objective: To examine the impact headaches have on daily functioning and quality of life in individuals with MS.

Methods

Subjects

Twenty two patients diagnosed MS participated in this cross-sectional study. Patients were selected based on history of headache through chart review.

Each individual completed two standardized questionnaires: 1. SF-36 for quality of life (QOL). The SF-36 questionnaire is used extensively to assess QOL issues in the MS population and consists of health-related questions covering 8 domains. 2. Headache Impact Test (HIT-6). A six-item questionnaire to address impact of headaches on overall day-to-day functioning.

Statistical Analysis

Descriptive analyses (means ± standard errors (SE)) were performed for all variables. A Pearson product moment correlation coefficients were computed for headache and the eight QOL components.

All statistical analysis was performed using SPSS, version 16.0 (SPSS Inc, Chicago, IL, USA). Statistical significance was defined as P-value < 0.05. All data are presented as mean ± SE.

Results

Demographics

Cohort (n = 22) characteristics include: female (60%), relapsing remitting form of MS (50%), MS immune modulator medicine (80%), married (63%), employed (63%), educated (90% had some college and 41% were college graduates).

Mean age was 48 years (SE = 2.1). Duration since MS diagnosis was 8.3 years (SE = 1.7), and mean age of onset of headache was 23.5 years (SE = 2.2) (Table I).

Table I. Subject Characteristics (n = 22)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean ± SE</th>
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<tr>
<td>Age (yrs)</td>
<td>48.0 ± 2.1</td>
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<tr>
<td>MS duration (yrs)</td>
<td>8.3 ± 1.7</td>
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<tr>
<td>Onset of headache</td>
<td>23.5 ± 2.2</td>
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<tr>
<td>HIT-A score</td>
<td>59.3 ± 1.7</td>
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Headache Impact Scale

The headache impact scale quantifies information obtained from the following six items: pain, social functioning, role functioning, vitality, cognitive functioning and psychological distress. The generated scores range from 36 to 78 with the higher scores representing a greater impact on an individual's life. In our study the mean HIT score was 59.3. This higher score indicates a substantial impact with pain causing limitations in daily activities and social well-being.

SF-36

There were moderately high negative correlations between impact of headache (HIT-6) and the following SF-36 QOL subscales:

- Physical functioning (r = -0.50, p < 0.05) (Figure I)
- Role limitations due to physical health (r = -0.63, p < 0.01)
- Energy/fatigue (r = -0.66, p < 0.01)
- Social functioning (r = -0.50, p < 0.05) (Figure II)
- Pain (r = -0.63, p < 0.01)
- General health (r = -0.75, p < 0.01) (Figure III)

No significant relationship was found between headache and role limitations due to emotional problems or emotional well-being (p > 0.05).

Discussion

Severity of headaches negatively affect QOL in MS patients and therefore every effort should be made to intervene at an early stage to control the pain. The results from this study demonstrated that comorbid headaches in MS have a substantial effect on QOL issues, general well-being and social functions.

HIT-6: a short questionnaire that assesses the impact headaches have on routine functions, correlates well with physical and social functioning and general health, but not with emotional parameters as measured by a quality of life instrument commonly used in MS (SF-36).

Conclusions

Increase headache severity in an MS cohort worsens QOL by impacting 6 out of 8 subscales within the SF-36. HIT-6 and SF-36 are dependable tools in predicting physical and social challenges encountered by patients with MS who have co-occurrence of primary headaches.

Based on the results from this study it is imperative to control the impact of headaches in the MS population, to improve overall quality of life and independence.

Future studies using multi modality methods of treatment are required for improved management of this comorbidity.

References


Disclosure

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