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Determinants of quality of life in pediatric- and adult-onset multiple sclerosis

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Study objective and summary result

This study of patients with multiple sclerosis (MS) tested the hypothesis that the quality of life (QoL) impairments of adults with pediatric-onset MS (POMS) are greater than those of adults with adult-onset MS (AOMS). The results, however, showed that POMS and AOMS are associated with similarly severe QoL impairments.

What is known and what this paper adds

Relative to patients with AOMS, patients with POMS exhibit greater cognitive impairment levels and reach disability milestones at earlier ages. However, this investigation provides evidence against the existence of any difference in QoL impairment severities.

Participants and setting

The investigators analyzed data from 354 adults with POMS (71.5% female; mean age, 27.36 ± 7.66 years) and 4,740 adults with AOMS (69.9% female; mean age, 36.93 ± 7.40 years) who were listed in the Swedish MS Registry, which collects data from throughout Sweden. The selected individuals had disease durations of <35 years.

Design, size, and duration

Cohort study with an average follow-up time of 3 years.

Primary outcome measures

The patients underwent QoL assessments with the EQ-5D, which includes the EQ visual analogue scale (EQ-VAS). Linear mixed models were used to compare the POMS and AOMS groups in terms of EQ-VAS scores.

Main results and the role of chance

The POMS and AOMS groups were similar in terms of EQ-VAS scores (β-coefficient for POMS group vs AOMS group, 0.99; 95% confidence interval, 0.89–2.87).

Table Comparisons of the POMS and AOMS groups in terms of specific EQ-5D domains

EQ-5D domain	Adjusted odds ratio (95% confidence interval) for reporting problems in the POMS group vs the AOMS group
Mobility	1.57 (0.81–3.06)
Self-care	0.37 (0.11–1.23)
Usual activities	0.88 (0.59–1.30)
Pain/discomfort	0.84 (0.58–1.22)
Anxiety/depression	0.71 (0.53–0.95)

Bias, confounding, and other reasons for caution

Although the present study included a relatively large number of patients with POMS, it might still have been underpowered for detecting differences within the POMS group.

Generalizability to other populations

The present study's focus on Sweden may limit the generalizability of the results to dissimilar countries.

Study funding/potential competing interests

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A draft of the short-form article was written by M. Dalefield, a writer with Editage, a division of Cactus Communications. The corresponding author(s) of the full-length article and the journal editors edited and approved the final version.

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