Relapses are understood to be the hallmark of multiple sclerosis (MS), but the relevance of relapses to the disability progression in MS is unclear. Some data have suggested that relapses are minimally associated with disease progression, whereas others have indicated that incomplete recovery from relapses and sustained disability progression are highly correlated. The Multiple Sclerosis Collaborative Research Group (MSCRG) trial was a phase 3, multicenter, double-blind, placebo-controlled, randomized controlled trial investigating the use of interferon beta-1a in patients with relapsing-remitting MS (RRMS) with data collected during two phase 3 clinical studies. Incomplete relapse recovery and sustained disability progression in MS

**OBJECTIVE**

- Determine the relative frequency with which disability progression occurred with or without relapses in patients with relapsing-remitting MS (RRMS) using data collected during two phase 3 clinical studies.

**METHODS**

- The Multiple Sclerosis Collaborative Research Group (MSCRG) trial was a phase 3, multicenter, double-blind, placebo-controlled, randomized controlled trial investigating the use of interferon beta-1a in patients with relapsing-remitting MS (RRMS).
- Data from MSCRG and AFFIRM were retrospectively analyzed to determine the frequency with which disability progression occurred with or without relapses in patients with relapsing-remitting MS (RRMS) using data collected during two phase 3 clinical studies.

**RESULTS**

- No significant differences in baseline characteristics were seen in the MSCRG study.
- Some significant differences in baseline characteristics were seen in the AFFIRM study (data not shown).

**CONCLUSIONS**

- In this analysis, sustained disability progression occurred more frequently in association with incomplete recovery than relapse.
- The majority of patients who had sustained disability progression due to incomplete recovery from relapses had only 1 relapse during the study period.
- Less than one-third of relapses in either study led to sustained disability progression.

- Examination of data for patients with sustained disability progression revealed substantial variation in MS disease progression, depending on baseline disability status.
- It is possible that in this group of patients, inflammatory events rather than a more slowly evolving “relapse-free” degenerative process were the underlying cause of disease progression.

- This variable phenotypic expression of MS may be offered with differing responses to existing therapies.
- Further investigation into the association between relapse and disease progression is needed to better understand the results of this study.

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**REFERENCES**