Official title of the study

Combined Behavioral and Analgesic Trial for Fibromyalgia (COMBAT-FM)

NCT01598753

Date of submission

October 29, 2018

Primary responder outcome: 30% improvement in daily diary pain intensity ratings or 20% improvement in the 9-item function subscale of the Fibromyalgia Impact Questionnaire Revised.

Data analysis: The distributions of participant characteristics at baseline will be examined according to treatment assignment using one-way analysis of variance or chi square statistics. If age, sex, education level, pain intensity, or pain interference levels differ significantly between treatment groups, then we will include that characteristic(s) as a covariate in the multivariable models testing the treatment effects.

We will test the effects of CBT and Tramadol on the composite responder outcome using Poisson regression with robust standard errors. First, the interaction between CBT and Tramadol will be tested at an alpha level of 0.05. If the interaction term is statistically non-significant, it will be dropped from the model and we will then test the main effects of CBT and Tramadol at the 0.025 alpha level. If both main effects are significant, we would then conclude that the combination treatment would be most effective under the additive effect assumption of the model. If the interaction is significant, however, we will first compare the effects of CBT and of Tramadol with placebo using multiplicity adjusted p values. If a significant difference is found for either or both of the individual treatments, the analysis would proceed to a second stage, which would compare the combined effect of CBT + Tramadol with that of the double placebo. If a significant difference is found for the combined treatment over the double placebo, then the final stage of analysis would be performed comparing combined treatment with the individual treatments using multiplicity adjusted p values. In this analytic approach, if at least one hypothesis has been rejected, then the next stage of hypotheses would be tested, and the family-wise error rate would be controlled at the .05 alpha level.

Baseline observation carried forward will be applied to participants who discontinued their treatment (i.e., non-responders), while last observation carried forward will be used for participants who are missing post-treatment data.