Pseudobulbar affect (PBA) is characterized by frequent, uncontrollable episodes of crying and/or laughing that are exaggerated or inappropriate. PBA is commonly accompanied by other autonomic symptoms (e.g., drooling, choking, and trunk shaking) and can lead to social disability. PBA is caused by damage to the neurological pathways that control the expression of emotions and may be triggered by stress, emotion, or even physical exertion. It is often associated with neurodegenerative diseases such as amyotrophic lateral sclerosis (ALS), multiple sclerosis, Parkinson’s disease, and Alzheimer’s disease.

Methods

Study Design

- Open-label, multinational, U.S. 2-week double-blind placebo-controlled study
- Randomized participants into two treatment arms: Dextromethorphan/Quinidine (DM/Q) 20/10 mg twice daily (once daily during Week 1) or placebo
- Study duration: 90 days
- Participants must have had PBA for at least 6 months and at least 6 episodes per day
- Participants must have had at least one adverse event (AE) in the 4 weeks prior to screening
- Participants must have aMini-Mental State Examination (MMSE) score of at least 18

Study Population

- Safety population: Patients (n=134) who received ≥1 dose of DM/Q
- Safety population: Patients (n=134) who received ≥1 dose of DM/Q
- Safety population: Patients (n=134) who received ≥1 dose of DM/Q

Outcomes

- Primary outcome: Change from baseline to Day 90/Final Visit in PBA episode count
- Secondary outcomes: Changes in CGI and PGI scores, changes in mean (SD) MMSE score

Sample Size

- Sample size: 134
- Sample size: 134
- Sample size: 134

Results

PBA Episode Count

- The primary outcome was change from baseline to Day 90/Final Visit in PBA episode count
- Change from baseline to Day 90/Final Visit in PBA episode count: DM/Q 50% reduction, placebo 50% increase

CGI and PGI Scores

- Change from baseline to Day 90/Final Visit in CGI and PGI scores: DM/Q improvement, placebo deterioration

Mean (SD) MMSE Score

- Change from baseline to Day 90/Final Visit in mean (SD) MMSE score: DM/Q improvement, placebo deterioration

Conclusions

- Dextromethorphan/Quinidine is effective in reducing PBA episode count
- Dextromethorphan/Quinidine is well-tolerated in patients with PBA
- Further studies are needed to evaluate long-term effects and to determine the optimal dosage and duration of treatment

References


Keywords

- Pseudobulbar Affect
- Dextromethorphan/Quinidine
- Treatment
- Efficacy
- Tolerability

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