

Curcumin Add-on Therapy for Induction of Remission in Mild-to-Moderate Active Ulcerative Colitis: A Multi-Center, Prospective, Randomized, Placebo-Controlled, Double-Blind Study

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Introduction:

Curcumin is an active phytochemical compound present in tumeric whose pharmacologic actions may be efficacious in the treatment of ulcerative colitis (UC). In this study we investigated the efficacy of curcumin add-on therapy for inducing remission in patients with active mild-to moderate UC.

Methods:

In this multi-center randomized, placebo-controlled double-blind study, 50 patients with active mild-moderate UC (defined by score of 5 to 13 in the Simple Clinical Colitis Activity Index (SCCAI)) were allocated to receive 1.5gr of curcumin capsules or identical placebo twice daily for one month on top of optimized 5ASA treatment. Clinical index (SCCAI), endoscopic index (partial Mayo) and serological parameters were determined at entry and conclusion of study period.

Inclusion criteria:

1. Confirmed diagnosis of UC
2. Age 18-70 years.
3. Disease activity score of >5 and ≤ 13 according to the Simple clinical colitis activity index (SCCAI).
4. Stable maximal 5ASA dose for at least 4 weeks prior to inclusion.
5. Stable immunosuppressant dose for at least 3 months prior to inclusion.
6. Able and willing to give written consent.

Results:

In the intention-to-treat analysis, 14/26 (54%) patients receiving curcumin and 0/24 patients receiving placebo achieved clinical remission (SCCAI ≤ 2) at week 4 ($P=0.01$, OR 42.2, 95CI 2.3 to 760). Clinical response (reduction of ≥ 3 points in SCCAI) was achieved in 17/26 patients receiving curcumin and in 3/24 patients receiving placebo ($P<0.001$, OR 13.2, 95CI 3.1 to 56.6). Endoscopic remission (defined as partial Mayo score ≤ 1) was observed in 9/21 (43%) of the patients in the curcumin arm and in 0/16 (0%) of the patients receiving placebo ($P=0.035$, OR 23.5, 95CI 1.2 to 445). The mean change in partial Mayo score was $+0.15 \pm 0.49$ for the placebo arm compared to -0.55 ± 0.79 in the curcumin arm ($P=0.04$). No serious adverse events were recorded.

Fig 1
Screening and Randomization

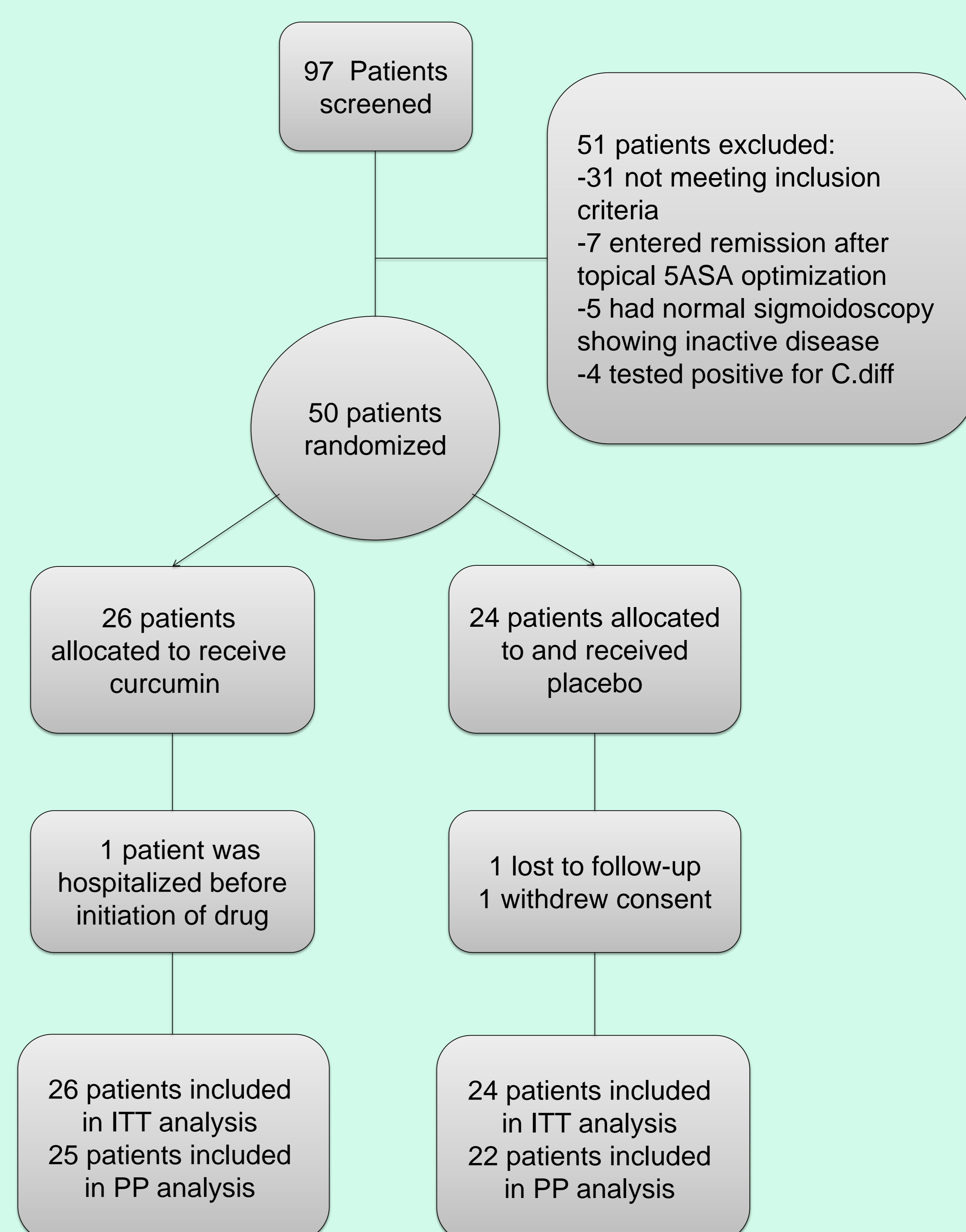


Fig 2
Clinical Response and Remission

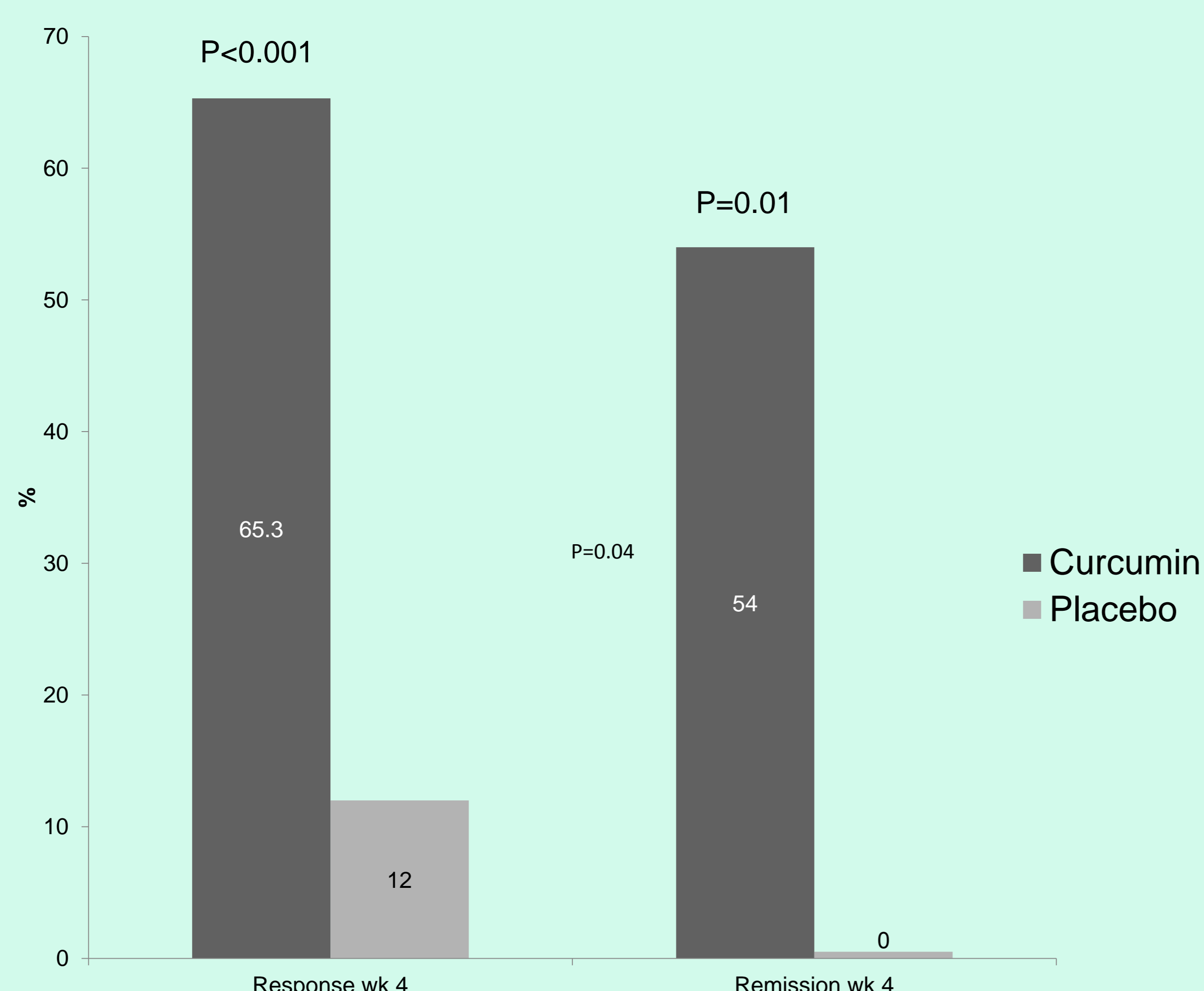
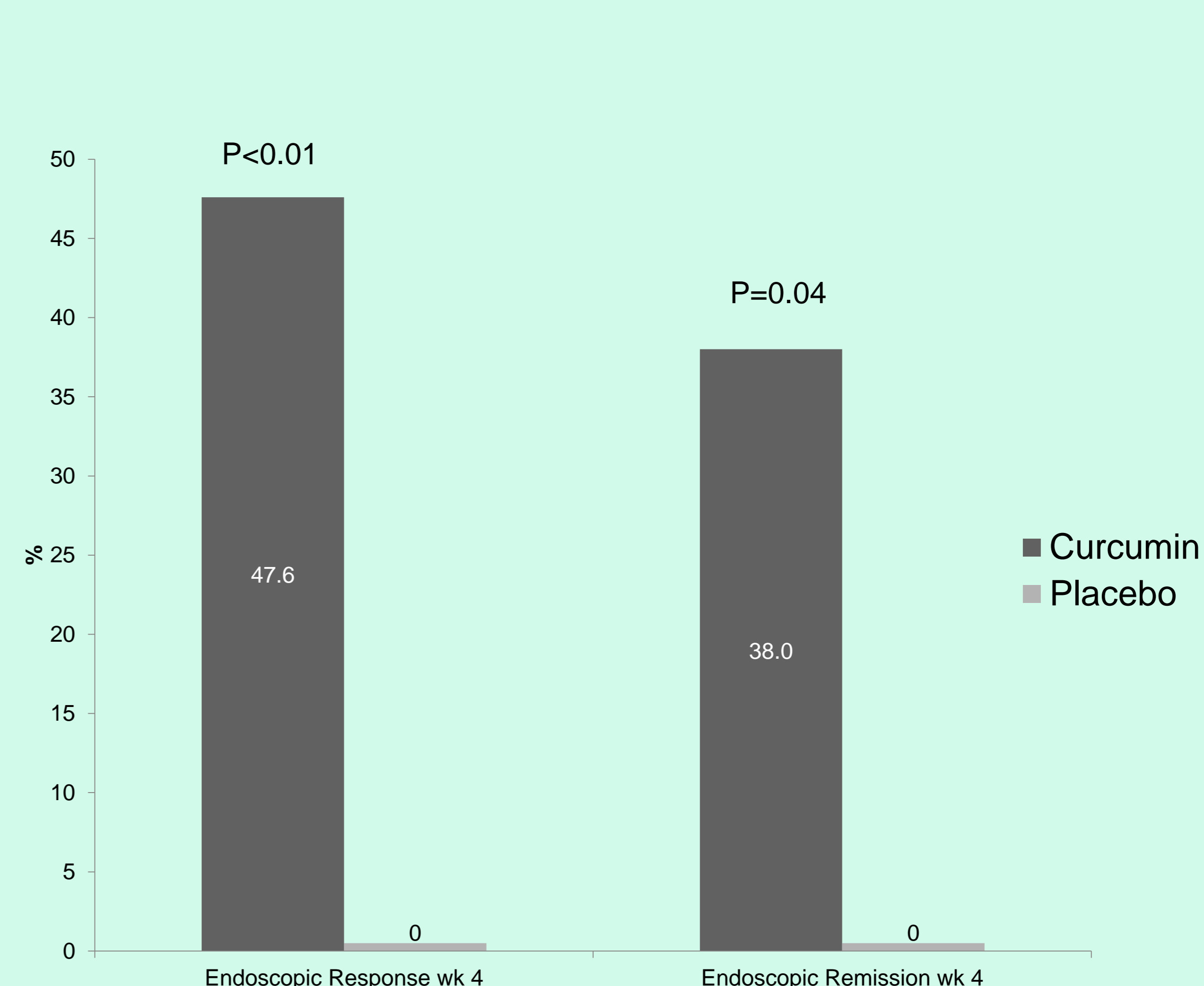


Fig 3
Endoscopic Response and Remission



Conclusion:

Curcumin as add-on therapy was superior to placebo for inducing clinical and endoscopic remission in mild-to-moderate active UC with no apparent adverse effects. Curcumin may be a safe and promising agent in the treatment of inflammatory bowel diseases.