

Efficacy and Safety of Etrolizumab in treatment of moderate to severe Ulcerative Colitis: A Systematic Review and Meta-analysis of clinical trials

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Background

Recent clinical trials have assessed the efficacy and safety of Etrolizumab in treatment of ulcerative colitis. We aim to assess the efficacy and safety of Etrolizumab for induction and maintenance of remission in moderate to severe ulcerative colitis.

Methods

We searched the following databases: PUBMED, Web Of Science, OVID, and SCOPUS in 15 January 2022. Inclusion criteria were any phase 2 and 3 clinical trials that compare Etrolizumab with placebo in treatment of moderate to severe ulcerative colitis, excluding case reports, animal studies, phase 1 trials, and conference abstracts. We used RevMan software (5.4) for the meta-analysis.

Conclusion

Etrolizumab is an effective and safe biologic drug in induction of clinical remission and maintenance of histologic and endoscopic remission in moderate to severe ulcerative colitis patients.

Results

Five clinical trials were included in our meta-analysis. The total number of patients included in the study is 1249 patients, 960 patients in the Etrolizumab group, and 399 patients in the placebo group. In the induction phase, the pooled analyses showed a statistically significant association between Etrolizumab and increased clinical remission, and endoscopic remission compared with placebo (RR= 2.66, [95% CI= 1.69 to 4.19], $P < 0.0001$), and (RR= 2.35, [95% CI= 1.52 to 3.65], $P = 0.0001$). In the maintenance phase, the pooled analyses showed a statistically significant association between Etrolizumab and increased histologic remission and endoscopic remission (RR= 2.04, [95% CI= 1.40 to 2.99], $P = 0.0002$) and (RR= 1.92, [95% CI= 1.29 to 2.95], $P = 0.001$). No statistically significant difference was observed in adverse events between Etrolizumab and placebo in induction and maintenance phases.

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