

Safety and Efficacy of Vedolizumab in Elderly Patients With Inflammatory Bowel Disease: A Systematic Review and Meta-Analysis

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INTRODUCTION

Global incidence and prevalence of inflammatory bowel disease (IBD) continues to rise, especially for individuals ≥ 60 years of age. There remains paucity of data on the use of biologics like Vedolizumab in elderly patients, as they are underrepresented in clinical trials. We performed a systematic review and meta-analysis to provide real-world data on the clinical efficacy and safety of Vedolizumab in the elderly population.

METHODS

A systematic search of several databases including Ovid EBM reviews, Ovid Embase, Ovid Medline, Scopus, and Web of Science was performed through May 2022 to identify studies which assessed the safety and efficacy of Vedolizumab therapy in the elderly population. Pooled proportion and risk ratios (RR) were calculated using the random-effects model. Heterogeneity was assessed using Cochran Q statistical test and I^2 statistics.

RESULTS (DEMOGRAPHICS)

- Total 11 studies with 3,546 IBD patients were included in our final analysis (1,314 elderly and 2,232 young).
- Mean age at initiation of vedolizumab therapy was 63.6–72.2 years for the elderly cohort.

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Vedolizumab is equally safe and efficacious in inducing clinical and endoscopic remission in elderly patients compared to young IBD patients.

RESULTS (REMISSION)

- Pooled rate of endoscopic, clinical, and steroid-free remission for elderly IBD patients was 32.69% (95% CI: 27.71-38.09; I^2 93%), 37.95% (95% CI: 33.08-43.06; I^2 13%) and 38.7% (95% CI: 31.63-46.43; I^2 57%), respectively.
- Although elderly patients had lower rates of steroid-free remission, we did not find a statistically significant difference in rates of clinical or endoscopic remission when compared to younger patients.

RESULTS (SAFETY)

- The pooled rate of overall and serious infections in the elderly cohort was 8.6% (95% CI: 6.83-10.8; I^2 23%) and 3.6% (95% CI: 2.26-5.75; I^2 76%), respectively.
- Pooled rate of IBD-related surgery and IBD-related hospitalizations in the elderly cohort was 8.64% (95% CI: 6.97-10.65; I^2 78%) and 10.54% (95% CI: 8.37-13.2; I^2 0%), respectively.
- There was no statistical difference in overall infections and IBD-related surgeries between elderly and young IBD patients, RR 1.43 (95% CI: 0.61-3.36; I^2 58%), $p=0.4$ and RR 1.20 (95% CI: 0.79-1.84; I^2 16%), $p=0.4$, respectively.

Figure 1a

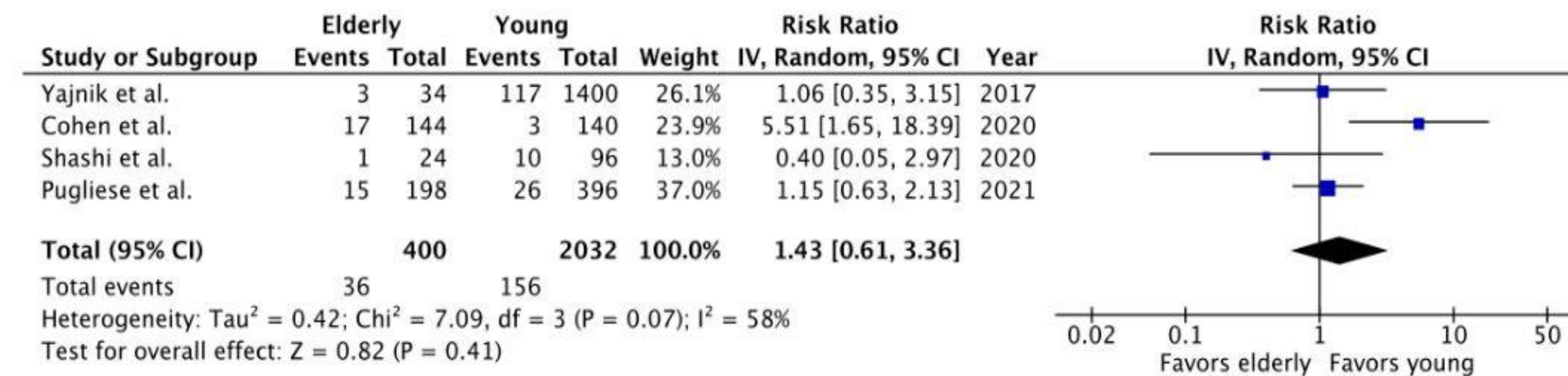
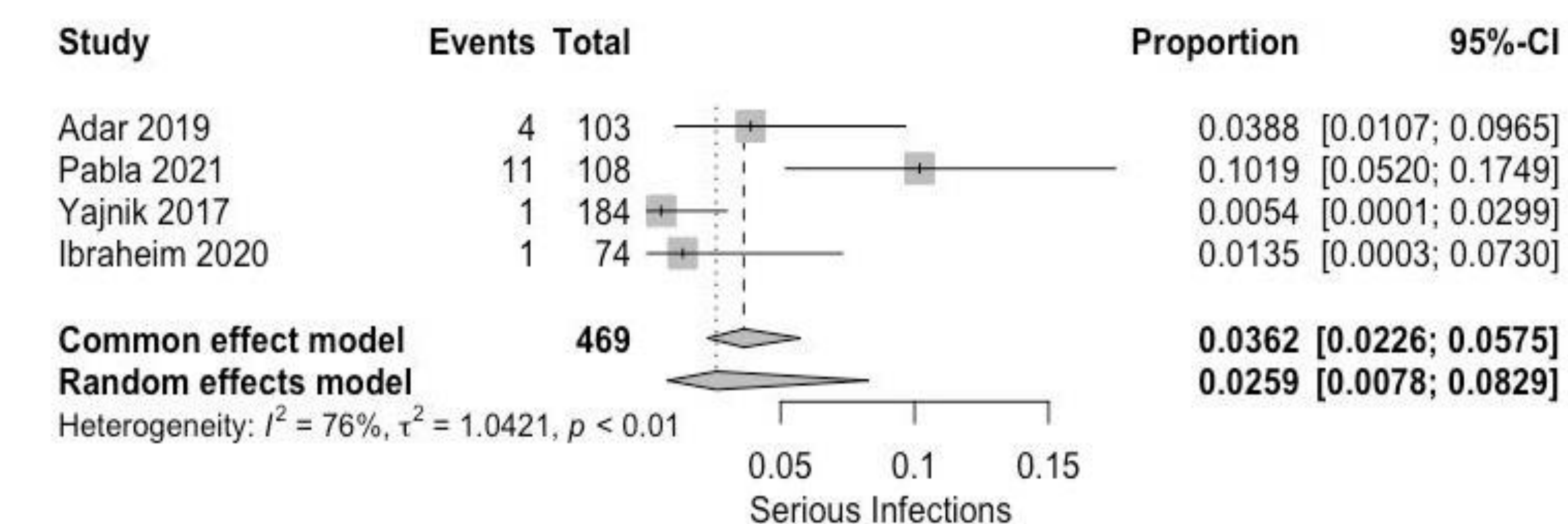


Figure 1b



CONCLUSION

Vedolizumab is equally efficacious in inducing clinical and endoscopic remission in elderly and young patients without differences in the overall rates of infections.