

PURPOSE

Postoperative recurrence of Crohn's disease is estimated approximately up to 50%. Postoperative prophylactic therapy is implemented for Crohn's disease to reduce both clinical and endoscopic recurrence. We conducted a systematic review and meta-analysis comparing adalimumab to azathioprine in the prophylaxis of postoperative Crohn's disease recurrence.

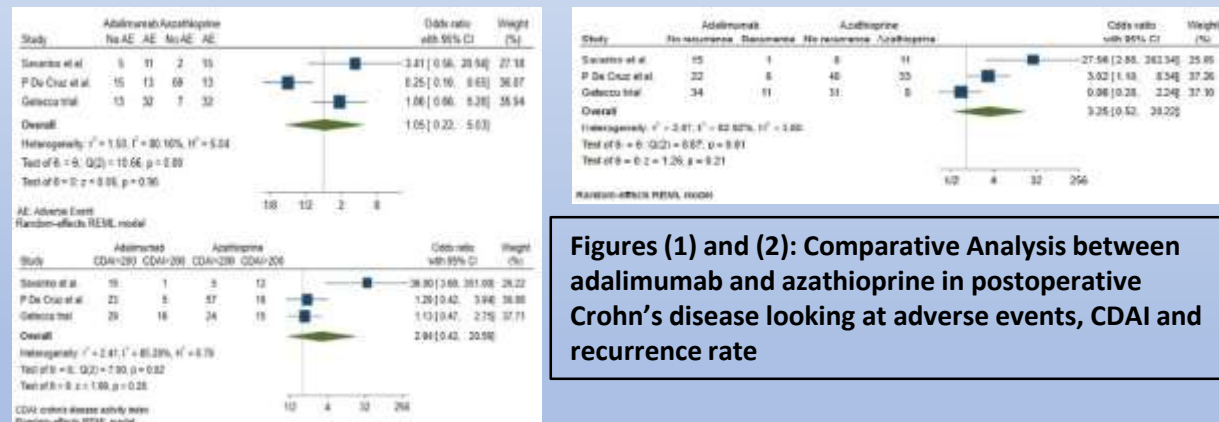
METHODS

We conducted a systematic search of the PubMed database from inception through 2017 for studies comparing adalimumab to azathioprine using the terms "Adalimumab", "azathioprine", "postoperative Crohn's disease" and "post-surgical resection Crohn's". Relevant data were extracted and analyzed using Comprehensive Meta-Analysis software. The random-effects model was used for all variables, and publication bias was assessed using Egger's test.

RESULTS

Three randomized controlled trials published between 2013 and 2017, examining a total of 218 patients, were included in our analysis. Out of the 218 patients, 118 were males and 100 were females, and the recurrence rate was reported as 6.3%, 21% and 29.7% in the adalimumab group compared to 64.7%, 45%, and 33.3% in the azathioprine among the three clinical trials. We found no difference between adalimumab and azathioprine in the prevention of postoperative disease recurrence by looking at endoscopic recurrence in this analysis which is the primary endpoint with a risk ratio of 3.25 (95% CI 0.52 to 20.22) ($I^2=82.92\%$). We also found no significant difference in total adverse effects between the two medications with an estimated risk ratio of 1.05 (95% CI 0.22 to 5.03) ($I^2=80.16\%$), in addition, no significant difference was found in postoperative CDAI between adalimumab and azathioprine with a respective risk ratio of 2.94 (95% CI 0.42 to 20.56) ($I^2=85.28\%$).

GRAPHS



Figures (1) and (2): Comparative Analysis between adalimumab and azathioprine in postoperative Crohn's disease looking at adverse events, CDAI and recurrence rate

CONCLUSION

Our results suggest that adalimumab is not superior to azathioprine in the prevention of postoperative disease recurrence with no difference in total adverse events.

CLINICAL IMPLICATION

No difference between adalimumab and azathioprine in the prevention of postoperative disease recurrence.

REFERENCES

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