Celecoxib for colorectal adenomas increased CV events


Clinical impact ratings GP/FP/Primary care ⋆⋆⋆⋆⋆ IM/Ambulatory care ⋆⋆⋆⋆⋆ Oncology ⋆⋆⋆⋆⋆ Cardiology ⋆⋆⋆⋆⋆

Gastroenterology

In patients with a history of colorectal neoplasia who are at risk of recurrent adenomatous polyps, how safe is celecoxib with respect to cardiovascular (CV) events?

METHODS

Design: randomised placebo controlled trial (Adenoma Prevention with Celecoxib [APC] Study).
Allocation: unclear allocation concealment. *
Blinding: blinded (clinicians, patients, judicial assessors of outcomes, and monitoring committee).*
Follow up period: 2.8–3.1 years.
Setting: 91 sites in the US, Canada, Australia, and the UK.
Patients: 2035 patients 32–88 years of age (mean age 60y, 68% men) who had had endoscopic polypectomy to remove colorectal adenomas.
Intervention: twice daily celecoxib, 200 mg (n = 685); celecoxib, 400 mg (n = 671); or placebo (n = 679). Patients were stratified by centre and use or non-use of aspirin for CV prophylaxis.
Outcomes: composite endpoint of death from CV causes, myocardial infarction (MI), stroke, or heart failure. Secondary composite endpoints included the addition of angina and need for a CV procedure.
Patient follow up: all patients completed at least 2.8–3.1 years of follow up (intention to treat analysis).

*See glossary.

MAIN RESULTS

The trial was stopped early with a 77% completion rate. 800 mg/day of celecoxib led to a greater risk of the CV composite endpoint than did placebo (table). The risk decreased slightly when angina (hazard ratio [HR] 2.3, 95% CI 1.1 to 4.7) and need for a CV procedure.

Outcome Comparisons Event rates RRI (95% CI) NNH (CI)
CV death, non-fatal MI, stroke, or heart failure† Celecoxib 800 v placebo 3.4% v 1.0% 236% (40 to 654) 43 (16 to 252)
Celecoxib 400 v placebo 2.3% v 1.0% 129% (10 to 438) Not significant

†Primary composite endpoint.

Other abbreviations defined in glossary; RRI, NNH, and CI calculated from hazard ratios in article.

CONCLUSION

In patients with a history of colorectal neoplasia who were at risk of recurrent adenomatous polyps, celecoxib led to a dose related increase in cardiovascular events.

Abstract and commentary also appear in ACP Journal Club.