NHS Lothian Research and Development Conference 2025

Reduced Risk of Colorectal Cancer in Inflammatory Bowel Disease with Biologic Therapies or 5-Aminosalicylates but not Immunomodulators: A Systematic Review and Meta-analysis

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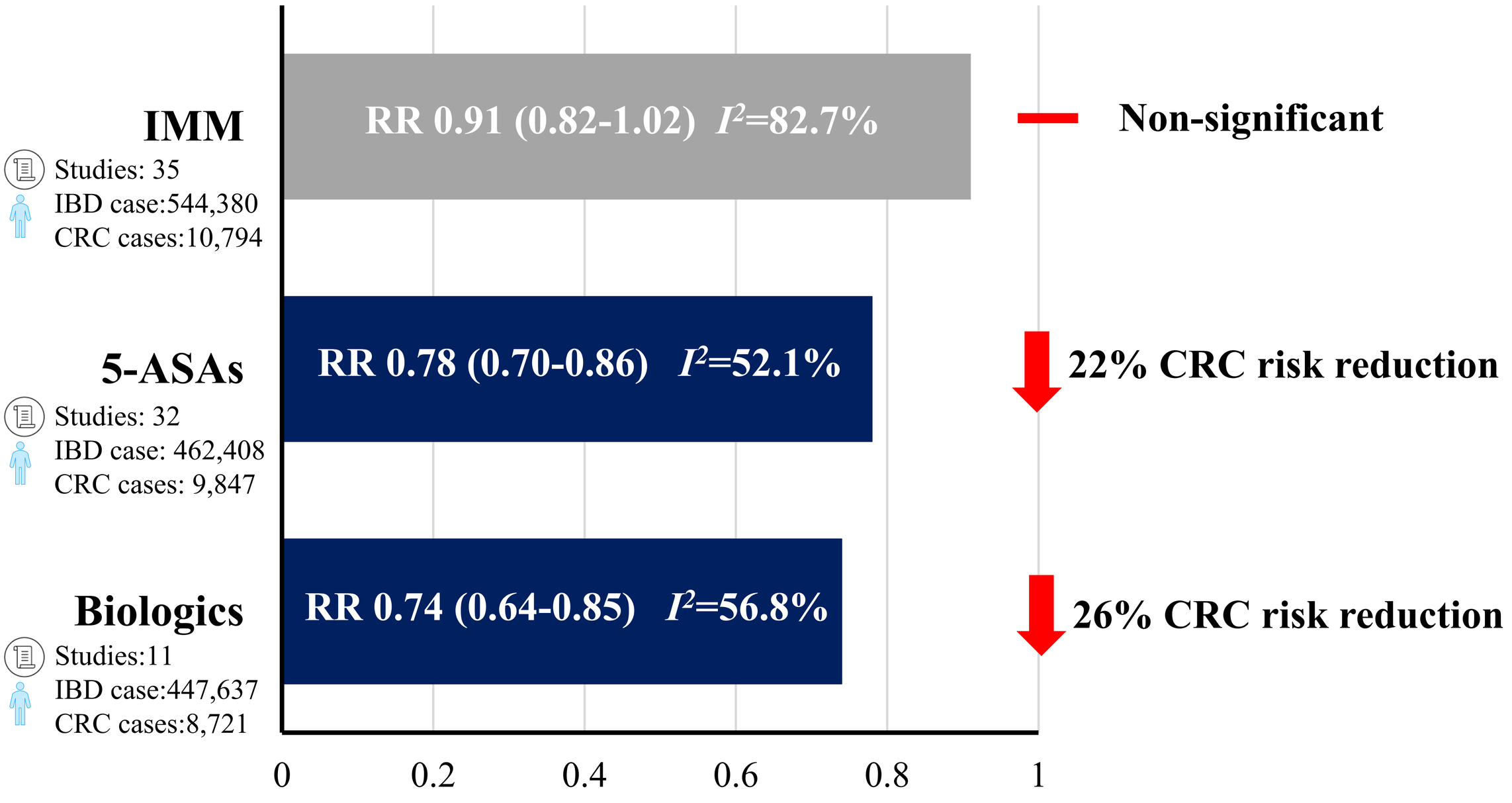
Introduction:

The incidence and mortality of colorectal cancer (CRC) remains elevated in the inflammatory bowel disease (IBD) population. We aimed to examine the association between biologics, 5-aminosalicylates (5-ASAs), and immunomodulators, with the risk of CRC and / or dysplasia in patients with IBD in a contemporaneous systematic review and meta-analysis.

Method:

We searched Web of Science, PubMed, MEDLINE, and EMBASE from inception to 15th June 2024 for all studies assessing the impact of biologics, 5-ASAs and immunomodulators on the occurrence of CRC or dysplasia in adults (≥16 years) with IBD. Data were pooled using a random effects model generating relative risk (RR) estimates with 95% confidence intervals (CIs).



Results:

- If the RR was less than 1 and the 95% CI did not cross 1, there was a significantly reduced likelihood of the AE with active drug.
- We assessed inter-study heterogeneity, using the I^2 statistic. The I^2 ranges between 0% and 100%, with values of 25% to 49% considered low, 50% to 74% moderate, and ≥75% high heterogeneity between the studies.
- Biologic therapies and 5-ASAs were associated with a reduced risk of CRC and /or dysplasia in patients with IBD.
- Immunomodulators were not associated with a reduced risk.

Conclusions:

The use of biologics and 5-ASAs, but not immunomodulators, are associated with a reduced risk of CRC and / or dysplasia. Further studies are need to reveal the reason but some studies suggest it might be inflammation control by these medications.

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