DRAMATIC REDUCTION IN ACUTE CORONARY SYNDROME WITH STEROID EXPOSURE IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE

Poster Contributions
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Background: Steroids are anti-inflammatory agents commonly used to treat inflammatory bowel disease (IBD). Inflammation plays a critical role in the pathophysiology of IBD and acute coronary syndrome (ACS). We sought to determine the relationship between steroid use in IBD patients and ACS.

Methods: In 177 IBD patients (67±10 years, 75% male, 44% Crohn’s disease, 56% ulcerative colitis), we performed a 1:2 case-control study matched for age, sex, and IBD type. We compared 59 IBD patients with ACS to 118 IBD patients without ACS. Steroid use was defined as current or past exposure. ACS was defined as myocardial infarction or unstable angina, confirmed by cardiac biomarkers and coronary angiography. We examined the association between steroids and ACS in all patients and by IBD type. We adjusted for body mass index, diabetes, dyslipidemia, smoking, family history of coronary disease, white blood cell count, and aspirin use.

Results: In IBD patients, 34% with ACS had exposure to steroids, while 58% without ACS had steroid use (p<0.01). Figure 1 depicts the association between steroids and ACS. Steroid use reduced the odds of ACS by 82% (adjusted odds ratio [OR] 0.18, p<0.01) in IBD patients. By IBD type, steroid use resulted in a 79-87% reduction in ACS odds (adjusted OR: ulcerative colitis 0.21; Crohn’s disease 0.13, both p=0.04).

Conclusions: In IBD patients, steroid use dramatically reduces the odds of ACS. These findings provide further mechanistic insight into the inflammatory processes involved in IBD and ACS.