and the cumulative dose was 51.5 ±124.84 g. There was no significant difference between the two groups. Peripheral neuropathy may occur earlier in males than in females, but no significance (36.1  $\pm 96.9$  vs 72.9  $\pm 118.0$  g, P=0.07, and 20.0  $\pm 20.1$  months, P=0.18).

Conclusions Whether thalidomide can lead to peripheral neuritis has a large individual difference. Male is more likely to develop peripheral neuritis than female to develop peripheral neuritis. But there is no statistical difference. Although symptomatic patients develop electromyogram damage earlier, it should be noted that there are still some patients with peripheral neuritis in asymptomatic patients. Therefore, electromyography should be monitored regularly in IBD patients with thalidomide for more than one year to avoid irreversible peripheral neuritis.

IDDF2020-ABS-0224 THE RISK OF MYOCARDIAL INFARCTION IN PATIENTS WITH INFLAMMATORY BOWEL **DISEASE: A META-ANALYSIS** 

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Background Systemic inflammation of inflammatory bowel disease (IBD) may increase the risk of cardiovascular events. Yet, the risk of myocardial infarction incidence in IBD patients is still unclear. We aim to investigate the risk of myocardial infarction in patients with ulcerative colitis (UC) or Crohn's disease (CD).

Methods We systematically searched for an observational study about IBD and myocardial infarction from PubMed, EBSCO, and Scopus up to August 2020. The inclusion criteria were the diagnosis of IBD preceding the incidence of myocardial infarction and survival study providing hazard ratio. Hazard ratio (HR) was calculated with 95% confidence interval (CI) while heterogeneity was assessed using the I<sup>2</sup> statistics. The primary outcome was myocardial infarction incidence. Data

from eligible cohort studies were pooled for effect estimates. Statistical analysis was performed using Review Manager

Results We selected 4 eligible cohort survival studies for analysis. The pooled hazard ratio was 1.54 (95% CI 1.07-2.21; I<sup>2</sup>: 84%) for Crohn's disease and 1.29 (95% CI 1.06–1.57; I<sup>2</sup>: 80) for Ulcerative Colitis (figure 1). High heterogeneity was attributed to the different follow-up periods and patient characteristics used in the pooled studies. The funnel plot was asymmetric, suggesting publication bias.

Conclusions There was an association between IBD and the incidence of myocardial infarction. Further study is needed to confirm the results.

IDDF2020-ABS-0226 | IBS AND ANIMAL EXPOSURE

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Background Irritable bowel syndrome (IBS) is a heterogenous functional disorder that is rising in worldwide prevalence with a significant healthcare burden. There has been increasing attention worldwide on the relationship between animal exposure and IBS.

Methods PubMed was used to search for all of the studies published using the keywords: 'irritable bowel syndrome' and 'pet ownership', 'giardiasis', 'blastocystis', 'aeroallergens'.

In our review, we explore the association of pet ownership and IBS and their mechanism of action.

Results Pet ownership changes the gut microbiome, which can lead to gut dysbiosis and disruption of gut immunity. Blastocystis, Bifidobacterium, Ruminococcus and Akkermansia are amongst several microbiomes affected by pet ownership and shown to be associated IBS.

Conclusions Current data delineate a clear link between animal exposure and IBS. However, more studies are warranted to substantiate these explanations and understand the relationship on an individual, societal and global level.

## Crohn's Disease Hazard Ratio **Hazard Ratio** log[Hazard Ratio] IV, Random, 95% CI Year Study or Subgroup SE Weight IV. Random, 95% CI Osterman 2011 0.0861 0.1043 29.1% 1.09 [0.89, 1.34] 2011 Close 2015 0.1823 0.1922 23.8% 1.20 [0.82, 1.75] 2015 Aniwan 2018 1.0612 0.2893 18.0% 2.89 [1.64, 5.09] 2018 Choi 2019 0.5877 29.1% 1.80 [1.47, 2.21] 2018 0.104 Total (95% CI) 100.0% 1.54 [1.07, 2.21] Heterogeneity: $Tau^2 = 0.11$ ; $Chi^2 = 18.42$ , df = 3 (P = 0.0004); $I^2 = 84\%$ 0.01 0.1 100 Test for overall effect: Z = 2.32 (P = 0.02) **Ulcerative Colitis Hazard Ratio Hazard Ratio** Study or Subgroup log[Hazard Ratio] SE Weight IV, Fixed, 95% CI Year IV, Fixed, 95% CI 0.1043 0.06612 1.11 [0.98, 1.26] 2011 Osterman 2011 35.0% Close 2015 0.3364 0.0955 16.8% 1.40 [1.16, 1.69] 2015 Aniwan 2018 1.0612 0.2893 1.8% 2.89 [1.64, 5.09] 2018 Choi 2019 0.1043 0.05743 46.4% 1.11 [0.99, 1.24] 2018 Total (95% CI) 100.0% 1.17 [1.09, 1.27] Heterogeneity: $Chi^2 = 14.77$ , df = 3 (P = 0.002); $I^2 = 80\%$ 0.2 0.5 Test for overall effect: Z = 4.11 (P < 0.0001)

Abstract IDDF2020-ABS-0224 Figure 1 Forest plot showing the risk of myocardial infarction in Crohn's Disease and Ulcerative Colitis

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