

Overview

- There is an increased risk of non-Hodgkin's lymphoma (NHL) in chronic inflammatory diseases like rheumatoid arthritis and celiac disease (CD).
- Although inflammatory bowel disease (IBD) is associated with hematologic manifestations, the association between NHL and IBD remains unclear.
- Using a large database, we aimed to investigate the epidemiology and risk of NHL in IBD patients.

Methods

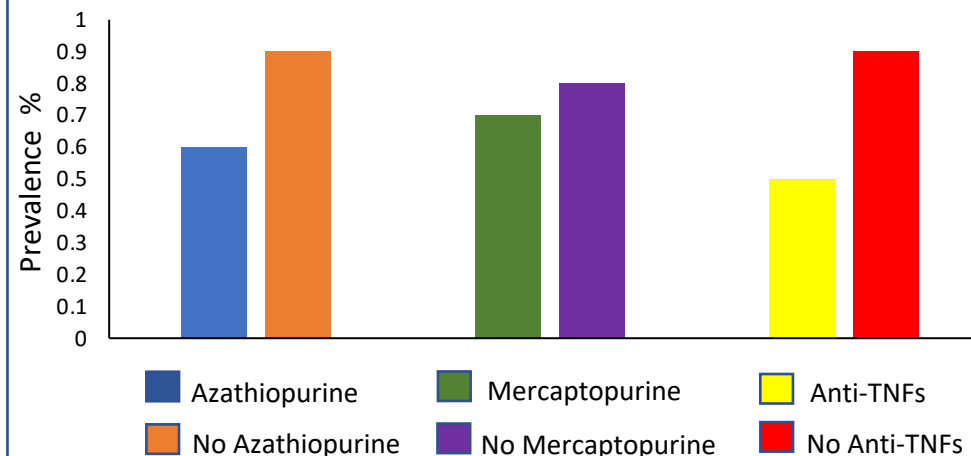
- We queried a multi-institutional database Explorys.
- We identified patients diagnosed with IBD, CD, and NHL based on Systemized Nomenclature of Medicine Clinical Terms between 1999 and the present.
- We assessed the prevalence of NHL in patients with IBD without CD and CD without IBD and compared it to patients without IBD or CD.

Results

- We identified 187,510 with NHL (0.3%), 412,950 with IBD (0.6%), and 136,690 with CD (0.2%).
- The prevalence of NHL was 0.7% in CD without IBD, 0.8% in IBD without CD and 0.3% among patients without CD or IBD.
- The risk of NHL was higher in CD without IBD [OR 3.01 95% CI: 2.82–3.21, p < 0.0001] and in IBD without CD [OR 3.22 95% CI: 3.11–3.33, p < 0.0001] than in pts with neither IBD nor CD.
- In the group with IBD, the risk of NHL was higher in females vs. males (51% vs 49%), in elderly vs. adults aged 18–65 (69% vs 31%) and in Caucasians vs. non-Caucasians (84% vs 16%) (table).
- IBD patients treated with anti-tumor necrosis factors (anti-TNFs) had lower rates of NHL [OR: 0.60; 95% CI: 0.53-0.68, P < 0.0001] vs IBD who were not on anti-TNFs.
- Azathioprine had lower rates of NHL [OR: 0.74; 95% CI: 0.64-0.86, P= 0.0001].
- 6-mercaptopurine had no significant effect [OR: 0.86; 95% CI: 0.71-1.06, P= 0.1518] (figure).

	NHL in IBD (excluding those with celiac) -N	Odd's ratio, 95% CI, p-value
Female/ Male	1680 (51%)/ 1590 (49%)	OR 1.12 (1.01-1.23), P= 0.0260
Elderly / Adults age 18-65	2250 (69%)/ 1020 (31%)	OR 4.84 (4.36-5.37), P<0.0001
Caucasian/ Other	2740 (84%)/ 540 (16%)	OR 25.75 (22.60-29.34), P<0.0001

NHL prevalence in IBD without Celiac disease



Discussion

- We report a distinct increased association of NHL in IBD and CD.
- Our findings of lower rates of NHL in immunosuppressed patients contradicts prior studies.
- These discrepant results could be a sampling error, but also could be that lower inflammatory states are associated with lower NHL rates.
- More study is needed to evaluate this.