

Overview

- Inflammatory bowel disease (IBD) is associated with skin manifestation; Erythema nodosum and pyoderma gangrenosum being the most common but other skin disorder have been reported in IBD.
- Vitiligo is a rare autoimmune disease that is diagnosed based on clinical findings and examining the skin by wood lamp that reveals depigmentation patches.
- In the past, case studies (Shafa S et al) and case reports have suggested a link between Vitiligo and IBD.
- We aim to describe the epidemiology and risk of Vitiligo in IBD patients.

Methods

- We used database Explorys Inc.
- We identified patients with diagnosis of IBD, CD, and vitiligo from 1999 to the present.
- We assessed the association of vitiligo in IBD patients without CD and CD patients without IBD and compared them with individuals with neither IBD nor CD.

Results

- We identified a total of 50,020 patients with vitiligo (0.1%), 412,950 patients with IBD (0.6%), and 136,690 patients with CD (0.2%).
- Among those with vitiligo, there were 450 (0.4%) CD patients (without IBD), 880 (0.3%) IBD patients (without CD), 50 (0.2%) patients with both celiac and IBD, and 48,640 (0.07%) patients with neither CD nor IBD (control group).
- The prevalence of vitiligo was 0.4% in celiac disease (without IBD) and 0.3% in IBD (without CD).
- The risk of vitiligo was higher in the CD-only group [OR 5.65 (5.15–6.20)] and IBD-only group [OR 3.24 (3.03–3.46)] compared to the control group (table 1).
- In the IBD-only group, vitiligo was more commonly associated with females compared to males [OR 1.44 (1.19–1.74), $P < 0.0001$], in adults aged 18–65 compared to elderly patients [2.52 (2.08–3.06), $P < 0.0001$], and in Caucasians compared to non-Caucasians (OR 9.0 [7.25–11.17], $P < 0.0001$) (Figure 1).

	OR, 95% CI, p-value*
	*Compared to patients with vitiligo without celiac nor IBD
Vitiligo in CD-only	OR 5.65(5.15-6.20), $P < 0.0001$
Vitiligo in IBD-only	OR 3.24(3.03-3.46), $P < 0.0001$

Table 1. Odd's ratio comparing the prevalence of vitiligo in celiac disease and in IBD to patients with vitiligo without celiac or IBD. Univariate analysis used to calculate OR. OR; odds ratio, CI; confidence interval, IBD; Inflammatory bowel disease.

Prevalence of vitiligo in IBD patients without celiac

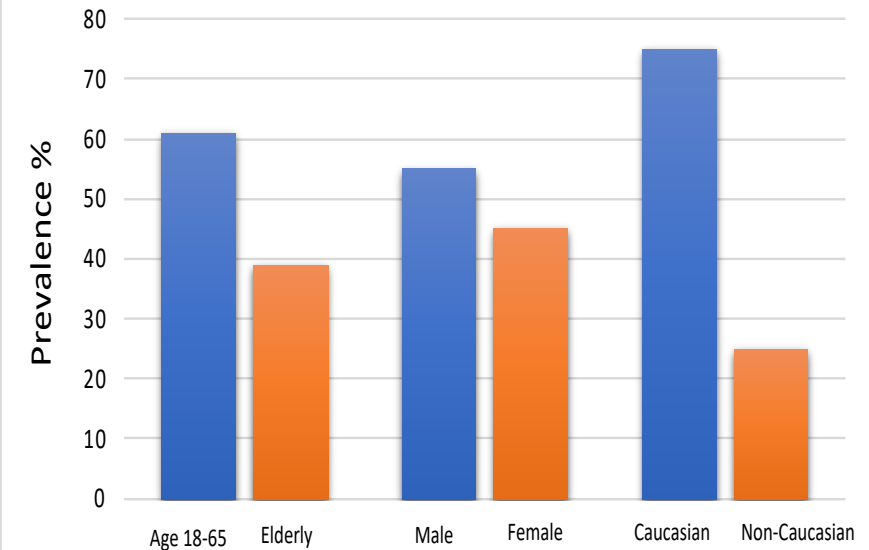


Figure 1. Gender-, Age- and Race-Based Prevalence ratio of vitiligo in individuals with IBD without history of celiac disease in the United States.

Discussion

- Utilizing a large population database, we report a distinct increased association of vitiligo in IBD and CD.
- Further studies are necessary to confirm this association and discover the mechanism behind this association.