

Cleveland Clinic Crohn's Disease Patients Treated With Anti-TNFs Have Lower Rates of Interstitial lung disease.

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Introduction

- Patients with Crohn's Disease (CD) are at increased risk of pulmonary manifestations in particular interstitial lung disease (ILD).
- Few studies reported that Anti-Tumor Necrosis Factor (Anti-TNF) may decrease the pulmonary inflammation in Rheumatoid arthritis patient.

Aim

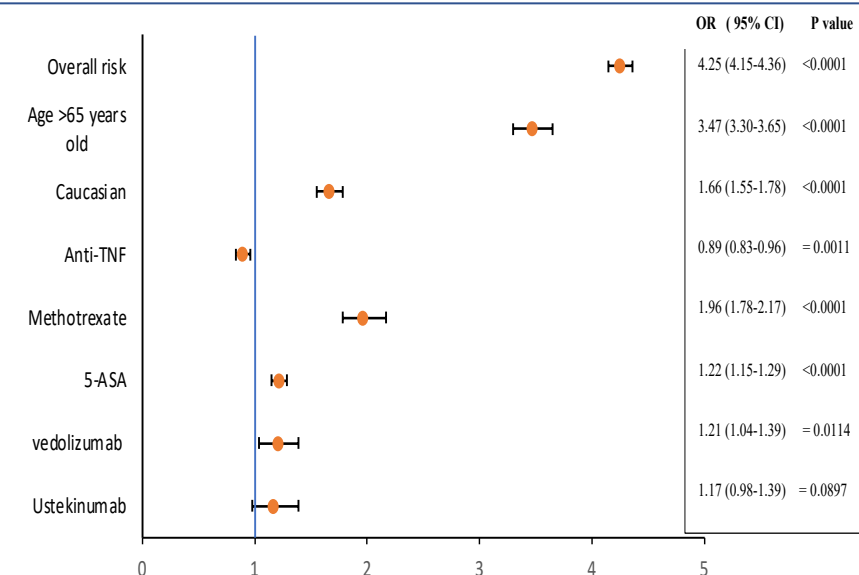
- We aim to investigate the prevalence of ILD in CD patients with and without anti-TNF therapy in large database.

Methods

- Explorys Database
- Retrospective cohort 1999-2022
- Patients >18 years old
- Investigated the prevalence of ILD in CD patients compared to patients with no IBD.
- Compared the prevalence between CD patients with and without anti-TNF therapy.

Results

Of the 70, 301,380 individuals in the database from 1999 to present, we identified 249,300 (0.3%) patients with CD, of whom 40,840 (16.4%) patients received anti-TNFs. CD patients were 59.4% females, 76% Caucasian, and 70% in 18-65 years age group. Compared to the general population, patients with CD had higher association risk of ILD diagnosis [OR: 4.25; 95% CI: 4.15-4.36, $P < 0.0001$]. Among CD, predictors of having ILD included being elderly (>65 years old), male, Caucasian, smokers, has history of type 2 diabetes and obesity ($P < 0.0001$). CD patients treated with anti-TNF had lower rates of ILD [OR: 0.89; 95% CI: 0.83-0.95, $P = 0.0011$] whereas 5ASA, methotrexate and vedolizumab had higher rates of ILD [OR: 1.22; 95% CI: 1.15-1.29, $P < 0.0001$], [OR: 1.96; 95% CI: 1.78-2.17, $P < 0.0001$] and [OR: 1.21; 95% CI: 1.04-1.39, $P = 0.0114$], respectively. Ustekinumab had no significant effect [OR: 1.17; 95% CI: 0.98-1.39, $P = 0.0897$].



Discussion

In this large study, we found a higher risk association between CD and ILD. We found that CD patients who were treated with anti-TNF were significantly less likely to have ILD when compared to IBD individuals who were never treated with anti-TNF. More clinical studies are needed to investigate if anti-TNF have a lung protective effect related to anti-inflammatory mechanism.