Risk of malignancies in patients with inflammatory bowel disease treated with thiopurines or anti-TNF alpha antibodies

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PURPOSE
We aimed to analyse malignancy rates and predictors for the development of malignancies in a large German inflammatory bowel disease (IBD) cohort treated with thiopurines and/or anti-tumour necrosis factor (TNF) antibodies.

METHODS
De novo malignancies in 666 thiopurine-treated and/or anti-TNF-treated IBD patients were analysed. Patients (n = 262) were treated with thiopurines alone and never exposed to anti-TNF antibodies (TP group). In addition, patients (n = 404) were exposed to anti-TNF antibodies (TNF+ group) with no (7.4%), discontinued (80.4%) or continued (12.1%) thiopurine therapy.

RESULTS
In the TP group, 20 malignancies were observed in 18 patients compared with 8 malignancies in 7 patients in the TNF+ group (hazard ratio 4.15; 95% CI 1.82-9.44; p = 0.0007; univariate Cox regression). Moreover, 18.2% of all patients in the TP group ≥50 years of age developed a malignancy, compared with 3.8% of all patients <50 years of age (p = 0.0008). In the TNF+ group, 6.5% of all patients ≥50 years of age developed malignancies compared with 0.3% of all patients <50 years of age (p = 0.0007). In both groups combined, thiopurine treatment duration ≥4 years was associated with the risk for skin cancer (p = 0.0024) and lymphoma (p = 0.0005).

CONCLUSIONS
Our data demonstrate an increased risk for the development of malignancies in IBD patients treated with thiopurines in comparison with patients treated with anti-TNF antibodies with or without thiopurines.

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