

Sarcoidosis and increased risk of Colorectal cancer: A systematic review and Meta-analysis

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Introduction: Sarcoidosis is a chronic inflammatory condition that appears to be associated with increased risk of malignancies. The aim of this study is to evaluate the correlation between sarcoidosis and the risk of colorectal cancer.

Methods: We performed a comprehensive search in the databases of PubMed/MEDLINE, Embase, and the Cochrane Central Register of Controlled Trials from inception through October 7, 2020. From each study, we collected the number of sarcoidosis patients with and without colorectal cancer. The primary outcome was the occurrence of colorectal carcinoma in both groups. The random-effects model was used to calculate the risk ratios (RR), mean differences (MD), and confidence intervals (CI). A p value <0.05 was considered statistically significant.

Results: A total of nine cohort studies involving 26347 patients were included in the meta-analysis. Incidence of colon cancer was significantly higher in patients with sarcoidosis in comparison to the control group (RR 1.36, 95% CI 1.17-1.57, p <0.0001). The incidence of rectal cancer was also significantly higher in patients with sarcoidosis compared to the control group (RR 1.23, 95% CI 1.01-1.5, p 0.03)

Conclusion: Our meta-analysis demonstrated that patients with sarcoidosis appear to be at significantly increased risk of colorectal cancer compared to the general population. This may worsen the prognosis in these patients even though sarcoidosis usually has a benign course. The chronic inflammatory nature of the disease as well as the immunosuppressive medications used in the management of sarcoidosis can play a role.