Lay title: Risk of cancer in participants who have previously had cancer.

Full title: The incidence of cancer in patients with rheumatoid arthritis and a prior malignancy who receive TNF inhibitors or rituximab: results from the British Society for Rheumatology Biologics Register-Rheumatoid Arthritis.

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It is known that the chronic inflammation associated with Rheumatoid Arthritis (RA) can predispose an individual to cancer.

Since 2001, biologic drugs called tumour necrosis factor inhibitors (TNFi), revolutionized the treatment of RA and have decreased the chronic inflammation associated with the disease. Later on, a new drug called rituximab, was developed and is licensed to be used for the treatment of RA if TNFi therapy does not work.

Rituximab is also used in the treatment of lymphoma (a blood cancer) and so is sometimes used as a "first line therapy" (meaning that the patient has not had treatment with any other biologic therapy before) in patients with RA who have had cancer in the past.

The BSRBR-RA researchers investigated if different treatment options in patients with a history of cancer influenced if a patient developed a new cancer, by looking at the following groups within the study:

Group 1

Patients with a history of cancer who were starting treatment with TNFi as their first biologic treatment.

Group 2

Patients with a history of cancer who were starting treatment with rituximab as their first treatment.

Group 3

Patient with a history of cancer who were on a traditional **DMARD** (Disease Modifying Anti-Rheumatic Drugs) therapy.

After taking the differences in the patients at registration in to consideration, the researchers found no increased risk of developing a new cancer for patients treated with either a TNFi or rituximab compared with those on traditional DMARD therapy. Moreover, they even noted a trend for a decreased risk but the numbers of patients were too low to draw a firm conclusion.

Should you wish to read this scientific paper in full, the text can be found here: https://www.ncbi.nlm.nih.gov/pubmed/27550304

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