First-line therapy with rituximab may lower mortality risk in RA patients with lung conditions

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Patients with rheumatoid arthritis who also have lung involvement often have increased mortality, but first-line therapy with rituximab may help them live longer when compared with the use of TNF inhibitors , according to new research findings presented this week at the 2016 ACR/ARHP Annual Meeting in Washington.

Rheumatoid arthritis (RA) is a chronic disease that causes pain, stiffness, swelling, and limitation in the motion and function of multiple joints. Though joints are the principal body parts affected by RA, inflammation can develop in other organs as well. An estimated 1.3 million Americans have RA, and the disease typically affects women twice as often as men.

It's not common for RA patients to have pulmonary complications such as interstitial lung disease (ILD). However, when present, ILD leads to increased mortality rates. Some research suggests that treatment with tumor necrosis factor inhibitors (TNFi) may be linked to ILD development or worsening of ILD in RA patients. In 2005, the British Society for Rheumatology advised against using TNFi in patients with RA and ILD, but there was no data on whether rituximab (RTX) would have the same effect or may improve mortality in these patients. So researchers in the United Kingdom studied five-year mortality in RA-ILD patients who had started therapy with either RTX or TNFi.

"Treatment of the underlying arthritis among patients with RA-ILD can be complicated, as methotrexate is often contraindicated," said Kimme Hyrich, MD, PhD, FRCPC, Professor of Epidemiology and Honorary Consultant in Rheumatology at the Arthritis Research UK Centre for Epidemiology at the University of Manchester. "It's been unclear what the best choice of biologic therapy is for patients with RA-ILD and active arthritis given the relative contraindication for TNFi."

The study's aim was to analyze and compare mortality rates among patients with RA-ILD who had started either rituximab or TNFi as their first biologic, including causes of death. The researchers examined mortality data on participants in the British Society for Rheumatology Biologics Register for RA. They included patients with clinician-reported RA-ILD at baseline who started either TNFi or RTX as their first biologic therapy. They located the date and cause of death for each patient on study follow-up forms, as well as linkage with the UK National Death Register.

They calculated death rates per 1,000 person-years, and censoring occurred at death, at December 6, 2015, or five years after the patient's first registration, whichever came first. They also examined the frequency of ILD mentions on death certificates. Their next step was to generate Kaplan-Meier survival curves with risk comparisons made between RTX and TNFi cohorts using Cox regression and an ever-exposed model, adjusted for potential confounders. They determined the eligibility of confounders by clinically relevant justification or statistical significance (p