

Frailty and risk of osteoporotic fractures in patients with rheumatoid arthritis: Data from the Ontario Biologics Research Initiative

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Frailty is defined as the state of being **weak in health or body** due to loss of reserves (such as energy, physical ability, cognition, health).

The relationship between frailty and risk of poor health outcomes in patients with rheumatoid arthritis (RA) remains unclear. Data from the Ontario Best Practices Research Initiative (OBRI), a clinical registry of patients with RA, were used to explore the relationship between frailty and fracture (bone breakage) risk in patients with RA.

The primary result investigators measured was the number of years to the first osteoporotic fracture (bone breakage due to bone loss) that led to a hospitalization or emergency room visit. Frailty was measured by an index (called Rockwood type frailty index) measuring 32 health related limits to one's social, psychological, and physical functioning.

The study participants (total= 2923) were an average age of 58 years old and 78% of the patients were female. Participants were followed by OBRI for an average of almost 4 years and during this time there were 125 (4.3%) fractures reported. RA patients with a fracture showed higher levels of frailty compared to patients without fractures.

In summary, the study demonstrates that higher frailty levels are significantly related to increased risk of fractures in patients with RA. Measuring the frailty of RA patients may aid in fracture risk assessment, management and decision making.