

Biological DMARD guidelines associated with a reduced need for knee and hip replacements in RA

June 15 2017

The results of a Danish study presented today at the Annual European Congress of Rheumatology (EULAR) 2017 press conference showed that the incidence of total knee replacements (TKR) carried out on patients with rheumatoid arthritis (RA) started to decrease after the introduction of biological Disease-Modifying Anti-Rheumatic Drugs (bDMARDs) to national treatment guidelines.

Prior to 2002, when the new guidance was introduced, the incidence of TKR had been increasing among RA patients. In a general population of individuals matched in terms of their age, sex and where they lived, the incidence of TKR has continued to increase throughout the entire study period (1996-2016). In contrast, the incidence of TKR carried out on patients with RA started to decrease after the introduction of bDMARDs to national treatment guidelines.

The incidence of total hip replacements (THR) has also maintained a steady increase in this matched population whereas among RA patients, apart from a rather surprising increase in 2003, the incidence of THR has followed an ongoing [downward trend](#) both after and before the guidance was introduced.

Previous data have been conflicting regarding a possible impact of more aggressive treatment, including treatment with bDMARDs, on the need for knee and hip replacements in patients with RA.

"Our findings show a clear downward trend in these two operations in RA patients in Denmark since the addition of bDMARDs to treatment protocols", said lead author Dr. Lene Dreyer, from the Centre for Rheumatology and Spine Diseases, Gentofte, Copenhagen, Denmark. "Also, the overall pattern of our findings is in line with those recently reported from England and Wales."

"In addition, a more widespread use of conventional DMARDs and the treat to target strategy may have contributed to this positive development," Dr. Dreyer concluded.

With a TKR baseline incidence rate of 5.87 per 1,000 person years in RA patients, based on biannual data, before 2002 the incidence of TKR had been increasing at a rate of plus 0.19 per year. After 2003, the downward trend has been equivalent to a minus 0.20 reduction in incidence per year.

With a THR baseline incidence rate of 8.72 per 1,000 person years in RA patients, based on biannual data, the downward trend was equivalent to a minus 0.38 reduction in incidence per year both before 2002 and after 2003. In 2003, there was a temporary increase of plus 2.23 in THR incidence per year.

National guidelines recommending bDMARD treatment for RA were introduced in Denmark in 2002. In this analysis, trends in the pre-bDMARD guideline era (1996-2002) were compared with those in the bDMARD period (2003-2016). 5-year age and sex-standardised incidence rates of THR and TKR were calculated for 30,868 RA patients diagnosed bi-annually between 1996-2011, and compared with 301,527 matched (RA-free) controls.

Provided by European League Against Rheumatism

Citation: Biological DMARD guidelines associated with a reduced need for knee and hip replacements in RA (2017, June 15) retrieved 4 May 2024 from <https://medicalxpress.com/news/2017-06-biological-dmard-guidelines-knee-hip.html>

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