Risk of heart attacks in patients with rheumatoid arthritis almost halved by biologic drugs: Data from the BSRBR-RA

Recently, the results of an analysis looking at the influence of TNFi on the risk of myocardial infarction (MI) have been published. The results represents a successful collaboration between the BSRBR-RA and the Myocardial Ischaemia National Audit Project (MINAP). We know that patients with rheumatoid arthritis (RA) are at increased risk of MI or heart attacks compared with subjects without RA, with the increased risk driven potentially by inflammation. TNF inhibitors (TNFi) may modulate the risk and severity of MI. This analysis compared the risk and severity of MI in patients treated with TNFi with that in those receiving synthetic disease-modifying anti-rheumatic drugs (sDMARDs).

The analysis included patients with RA recruited to the BSRBR-RA from 2001 to 2009 starting one of the three original TNFi (etanercept/infliximab/adalimumab) and a biologic-naive comparator cohort receiving sDMARD. Only patients with no history of ischaemic heart disease were included. In addition to the regular follow-up within the BSRBR-RA, all patients were linked to MINAP, a national registry of hospitalisations for MI. This linkage provided details of any additional MI’s occurring in England and Wales since 2003 not originally reported to the BSRBR-RA. It also provided more details about the MI itself, such as cardiac enzyme levels, ECG changes and occurrence of cardiac arrest. The risk of first MI was compared between cohorts using COX regression, adjusted using propensity scores to account for a wide range of possible confounding factors. MI phenotype and severity were also compared as was the 6-month mortality rates post-MI. In total, 252 verified first MIs were analysed: 58 in 3058 patients receiving sDMARD and 194 in 11,200 patients receiving TNFi (median follow-up per person 3.5 years and 5.3 years, respectively). The adjusted risk of MI in TNFi compared to sDMARD was 0.61 (95% CI 0.41 to 0.89), a 40% reduction. No statistically significant differences in MI severity or mortality were observed between treatment groups. These data suggest that patients with RA who receive TNFi have a significantly decreased risk of MI compared with patients with RA receiving sDMARD therapy over the medium term. This might be attributed to a direct action of TNFi on the atherosclerotic process or better overall disease control over time with TNFi.

Whether your patient is new to biologics/biosimilars or changing between drugs please remember to register them with us.

We currently have several open cohorts recruiting (see right). If you are ever unsure if a patient is eligible you can always contact the office or check our website.

BSRBR-RA is now taking registrations of all biosimilars. Currently Remsima, Inflectra and Benepali with more to come.

Patients starting Cimzia, Actemra or biosimilars who are already on the register can be Re-Registered with us. This means that they will count as a new patient for UK CRN accrual data. (BSRBR-RA UK CRN ID: 7302)

If for some reason a patient cannot be re-registered please continue to let us know about all biologic/biosimilar drug changes.

Recording therapy changes on follow ups:

Please remember to let us know the date of the last dose of the previous drug as well as the new start date. This is of particular importance where a participant may have had adverse events so we can record correctly which drug they were on at the time of event. It is equally important that we know this whether the change is between two biologics or from an originator to biosimilar drug.

Don’t forget that you can access our publications from the BSRBR-RA website.

Some of the recent papers include:

- Association between ischaemic stroke and tumour necrosis factor inhibitor therapy in patients with RA
- Risk of invasive melanoma in patients with RA treated with biologics: results from a collaborative project of 11 European biologic registers
- Risk of lymphoma in patients exposed to anti-tumour necrosis factor therapy: results from the BSRBR-RA
- The incidence of cancer in patients with rheumatoid arthritis and a prior malignancy who receive TNFi or rituximab: results from the BSRBR-RA

NEW: Once Flixabi becomes available later in the year we will be accepting registrations