MEDICAL THERAPIES AND PHARMACOLOGY

SEX DIFFERENCE IN RATE OF CANCER OCCURRENCE IN PATIENTS EXPOSED TO TNF-ALPHA INHIBITORS FOR PSORIASIS: PHARMACOVIGILANCE ANALYSIS FROM THE RADAR (RESEARCH ON ADVERSE DRUG EVENTS AND REPORTS) PROGRAM

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Introduction: TNF- alpha inhibitors (TNFaIs) have emerged as an important and widely used class of drugs to treat psoriasis. While cancer that occurred during exposure to these biologic agents have been reported, the rate of cancer occurrence is rarely stratified by sex. Thus, occurrence of cancer amongst women and men is relatively unknown.

Objective: The aim of this study is to determine if a significant difference exists for women when compared to men in the occurrence of cancer in patients who undergo TNF-alpha-Is therapy for psoriasis.

Materials and Methods: A large, urban, electronic medical record repository, the Northwestern Medicine Enterprise Data Warehouse (NMEDW) (>6 million patients) was searched (January 2001-December 2016) to detect all patients (18 to 89 years old) who were prescribed a TNFaI (infliximab, etanercept, adalimumab, certolizumab pegol, golimumab) for psoriasis. Data for a subset of patients with no recorded diagnosis of cancer prior to TNFaI exposure and then developed cancer were then detected by ICD-9 and 10 codes. Only patients with at least 6 months of TNFaI exposure and at least 12 months of in-clinic follow-up were included. Benign, in situ and keratinocyte cancers were excluded from the analyses.

Results: A total of 493 (218F; 275M) patients with psoriasis who received a TNFaI met the inclusion criteria. Cancer occurred in 11 females (5%) and in 7 males (3%). There was no significant difference in the rate of cancer between females and males (Chi-Square test; p=0.14).

Conclusions: Despite the higher rate of cancer occurrence in females, cancer rates between the sexes were not statistically significant in this study population. Further investigation is

necessary given the paucity of reports of incidence of adverse events by sex along with a myriad of genetic and environmental factors between the sexes that may play a role in the development of cancer.