PSORIASIS

RISK BY SEX FOR SERIOUS INFECTIONS, CARDIOVASCULAR EVENTS, AND CANCER IN PATIENTS TREATED WITH TNF-ALPHA INHIBITING AGENTS FOR PSORIASIS: A SYSTEMATIC REVIEW AND META-ANALYSIS

R.c. Kelm [(1)] - K.r. Patel [(1)] - J. Gao [(1)] - S. Rastogi [(1)] - L. Serrano [(1)] - Y. Ali [(2)] - K. Bhatt [(1)] - S. Amin [(1)] - A.e. Laumann [(1)] - D.p. West [(1)] - B. Nardone [(1)]

Northwestern University, Department Of Dermatology, Chicago, Il, United States [(1)] - Northwestern University, Department Of Dermatology, Chicago,il, United States [(2)]

Introduction: TNF-alpha inhibitors (TNFaIs), including etanercept (E), adalimumab (A), and infliximab (I), are indicated for the treatment of moderate-to-severe psoriasis. Serious adverse events, such as serious infection, cancer and cardiovascular events, have been reported during treatment with TNF-alpha inhibitors; however, these are rarely stratified by sex in published clinical trial data.

Objective: The aim of this study is to systematically review and analyze serious infection, cancer and cardiovascular events stratified by sex for patients treated with TNFaIs in published trials for psoriasis.

Materials and Methods: The MEDLINE, Cochrane Library and EMBASE databases were searched from inception to July 2018. Inclusion criteria were limited to English-language original randomized controlled trials (RCT) for E, A, and I. Only RCTs that included serious adverse event data (cardiovascular events, infection, cancer) stratified to sex were included in the analyses. Relative risk (RR) and 95% confidence intervals (CI) were calculated using random-effects and fixed-effects models based on heterogeneity of included studies.

Results: A total of 1,498 patients for cardiovascular events (RCT=5), 1,379 patients for serious infections (RCT=7), and 4,218 patients for cancer adverse events (RCT=10) were included in the analyses. A statistically significant increased risk for cancer events was seen in females compared to males (fixed effects: RR=2.44, 95%CI: 1.07-5.53, p=0.03; random effects: 95%CI: 1.04-6.78, p=0.04). No increased risk for cardiovascular events or serious infections was found in females compared to males (p=0.57 and p=0.16 respectively).

Conclusion: These analyses determined that there is an increased risk for cancer in females, but not for males, in psoriasis patients exposed to TNF-alpha inhibitors E, A and I,

suggesting that the incidence of adverse events may differ by sex. Further investigation is warranted to better understand the clinical relevance of these findings.