Objective

The M-A identified an increased risk with oral JAKIs compared with SoC for multiple AEs, spanning from less to more severe AE, including malignancies in both AD and non-AD populations.

Conclusions

The number of treatment options for patients with moderate-severe atopic dermatitis (AD) is increasing, however their safety profiles vary widely.

The safety profile of oral Janus kinase inhibitors (JAKis) remains a concern, and the main safety outcomes of the ORAL surveillance study are classed considered effects of all oral JAKis by EMA.2

Type 2 cytokines are critical components of AD pathogenesis and their overexpression leads to barrier defects and inflammation. JAKIs can interfere with the signaling pathways of some type 2 cytokines, in addition to cytokines and growth factors of other inflammatory pathways related to diseases such as rheumatoid arthritis.3

Safety warnings for these products have combined data across indications, making it difficult to assess risk for specific populations.

Background

The number of treatment options for patients with moderate-severe atopic dermatitis (AD) is increasing, however their safety profiles vary widely. The safety profile of oral Janus kinase inhibitors (JAKis) remains a concern, and the main safety outcomes of the ORAL surveillance study are considered class effects of all oral JAKis by EMA. A systematic literature review (SLR) was conducted on 17 preselected AEs based on randomized controlled trials of oral JAKis in AD and non-AD indications. The M-A identified an increased risk with oral JAKIs compared with SoC for multiple AEs, spanning from less to more severe AE, including malignancies in both AD and non-AD populations.

Conclusions

• • The M-A identified an increased risk with oral JAKIs compared with SoC for multiple AEs, spanning from less to more severe AE, including malignancies in both AD and non-AD populations.

• • As safety risks are observed in both the AD and non-AD populations, the use of oral JAKIs should be carefully considered.

Methods

• A systematic literature review (SLR) was conducted on 17 preselected AEs based on randomized controlled trials of oral JAKis in AD and non-AD indications.

• Meta-analyses (MA) estimated the incidence rate difference (IRD) for each AE between oral JAKis and standard of care (SoC). Both AD and non-AD populations were analyzed.

• Number needed to harm (NNH) was calculated as the inverse of the IRD for each AE (Figure 2).

• Including monoclonal antibodies, tumor necrosis factor inhibitors, antimetabolites, selective T cell co-stimulation modulators, topical corticosteroids, disease-modifying antirheumatic drugs and stable background therapies (glucocorticoids).

Disclosures

Kamila Chudzik, Shannon Schneider, and Henrik Brandi were employees of LEO Pharma to conduct the study. However, the funding did not influence the design, conduct or reporting of the research presented in this manuscript.