

SFDA SAFETY SIGNAL

“A signal is defined by the SFDA as reported information on a possible causal relationship between an adverse event and a drug, the relationship being unknown or incompletely documented previously. Usually more than a single report is required to generate a signal, depending upon the seriousness of the event and the quality of the information. A signal is a hypothesis together with data and arguments and it is important to note that a signal is not only uncertain but also preliminary in nature”

8-7-2021

Saudi Food and Drug Authority (SFDA) – Safety Signal of Infliximab and the Risk of Bursitis

*The Saudi Food and Drug Authority (SFDA) recommends all health care professionals to be aware of the safety signal of **Bursitis** associated with the use of **Infliximab**. The signal has been originated as a result of routine pharmacovigilance monitoring activities.*

Introduction

Infliximab is a chimeric human-murine monoclonal antibody. It is indicated in treatment of rheumatoid arthritis, ankylosing spondylitis, psoriatic arthritis, psoriasis, adult and pediatric Crohn’s disease, fistulizing Crohn’s disease and ulcerative colitis. Infliximab binds with high affinity tumor necrosis factor alpha (TNF α) and inhibits the functional activity of TNF α [1]. Bursitis is defined as inflammation of a bursa, saclike structures between skin and bone or between tendons, ligaments, and bone. It occurs when the synovial lining becomes thickened and produces excessive fluid, leading to localized swelling and pain [2]. The aim of this review is to evaluate the risk of Bursitis associated with the use of Infliximab and to suggest regulatory recommendations if required.

Methodology

Signal Detection team at the National Pharmacovigilance Center (NPC) of Saudi Food and Drug Authority (SFDA) performed a comprehensive signal review using its national database as well as the World Health Organization (WHO) database (VigiBase), to retrieve related information for assessing the causality between Bursitis and Infliximab [3]. We used the WHO- Uppsala Monitoring Centre (UMC) criteria as standard for assessing the causality of the reported cases [4].

Results

Case Review: The number of resulted cases for the combined drug/adverse drug reaction are 140 global ICSRs as of April 2021 [3]. The reviewers have selected and assessed the causality for top quality reported cases (30 ICSRs). More than half of the retrieved global ICSRs provide supportive association (2 probable and 16 possible cases). In addition, the SFDA have received a local case report for this

drug/adverse drug reaction. A 34-year-old female suffered bursitis after 5 months of initiating infliximab therapy. The case showed positive dechallenge and was assessed as probable causality [5].

Data Mining: The disproportionality of the observed and the expected reporting rate for drug/adverse drug reaction pair is estimated using information component (IC), a tool developed by WHO-UMC to measure the reporting ratio. Positive IC reflects higher statistical association while negative values indicates less statistical association. The results of (IC= 1.5) revealed a positive statistical association for the drug/ADR combination, which means “Bursitis” with the use of “Infliximab” have been observed more than expected when compared to other medications available in WHO database [3].

Literature: An abstract of case report entitled (Bilateral Sub-deltoid Bursitis in a Patient Receiving Infliximab for Crohn's Disease) was found. A 41-year-old man with Crohn’s disease who started Infliximab therapy at a dose of 5 mg/k. After 14 infusions of Infliximab, it was switched to Infliximab biosimilar. After 48 hours following the second infusion, the patient developed non-infective sub-acromial bursitis and Infliximab was stopped and replaced with Adalimumab [5].

Conclusion

The weighted cumulative evidence identified from the reported cases, data mining, and literature are sufficient to support a causal association between Infliximab and the risk of Bursitis. Health regulators and health care professionals must be aware of this potential risk and it is advisable to monitor any signs or symptoms in treated patients.

Report Adverse Drug Events (ADRs) to the SFDA

The SFDA urges both healthcare professionals and patients to continue reporting adverse drug reactions (ADRs) resulted from using any medications to the SFDA either online, by regular mail or by fax, using the following contact information:

National Pharmacovigilance Center (NPC)
Saudi Food and Drug Authority-Drug sector
4904 northern ring branch rd
Hittin District
Riyadh 13513 – 7148
Kingdom of Saudi Arabia
Toll free number: 19999
Email: NPC.Drug@sfd.gov.sa

References:

1. Janssen Biologics B.V. (2013). Saudi Summary of Product Characteristics (SPC) of Infliximab (Remicade) ® (retrieved from: EURS). [Accessed 4/11/2021]
2. Emedicine.medscape.com. 2021. Bursitis: Practice Essentials, Anatomy, Pathophysiology. [online] Available at: <<https://emedicine.medscape.com/article/2145588-overview>>. [Accessed 4/11/2021].
3. Uppsala Monitoring Center (UMC) (2020), Vigilyze database; Available at: <https://vigilyze.who-umc.org> [Accessed 4/11/2021].
4. Uppsala Monitoring Center (UMC) (2020), The use of the WHO-UMC system for standardized case causality assessment; Available at https://www.who.int/medicines/areas/quality_safety/safety_efficacy/WHOcausality_assessment.pdf?ua=1 [Accessed 4/11/2021].
5. Bellakhal, S., Abbes, M., Jomni, M., Abdelaali, I., Charfi, M. and Douggui, M., 2020. Bilateral Sub-deltoid Bursitis in a Patient Receiving Infliximab for Crohn's Disease. *Current Drug Safety*, 15(1), pp.77-80.