

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”

10-09-2024

Saudi Food and Drug Authority (SFDA) – Safety Signal of Amisulpride and the Risk of Ventricular extrasystoles

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

Introduction

Amisulpride, a substituted benzamide derivative, is a second-generation (atypical) antipsychotic. It enhances dopaminergic neurotransmission by preferentially blocking presynaptic dopamine D2/D3 autoreceptors. ^[1] Ventricular extrasystoles, also known as Premature ventricular contractions (PVCs) are extra heartbeats that begin in one of the ventricles. These extra beats disrupt the regular heart rhythm. It is a widely known consequence of QT prolongation. ^[2] The aim of this review is to evaluate the risk of Ventricular extrasystoles associated with the use of Amisulpride and to suggest regulatory recommendations if required.

Methodology

Signal Detection team at SFDA performed a signal review using National Pharmacovigilance Center (NPC) database, and World Health Organization (WHO) database, VigiBase, with literature screening to retrieve all related information to assess the causality between Ventricular extrasystoles and Amisulpride use. The search conducted on August 2024.

Results

Case Review: Signal detection team at SFDA have searched Saudi national database and WHO database to find individual case safety reports (ICSRs). The WHO database resulted in 13 global case-reports while no local cases found. The authors used signal detection tool (Vigilyze) to retrieve all reported global cases. ^[3] Authors also applied WHO-UMC causality assessment criteria on the extracted ICSR. ^[4] Among them, 5 cases were probably and possibly linked to Amisulpride while 8 cases assessed as not assessable due to lack of valuable information.

Datamining: 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 IC result is (2.0) for this drug/ADR combination which reflects positive statistical association. ^[4]

Additional Evidence: Through conducting literature search, we found a reported case of sinus rhythm with intermittent supraventricular and ventricular extrasystoles following Amisulpride overdosing. ^[5] In addition, the reference safety information for Amisulpride have mentioned multiple adverse events such as QT prolongation and ventricular fibrillation that ventricular extrasystoles might be part/consequence of it. ^[6]

Conclusion

The weighted cumulative evidence identified from assessed cases and disproportionality analysis are suggestive for causal association between Amisulpride and Ventricular extrasystoles. Health care professionals and health regulators must be aware of the potential risk in drug recipients.

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@sfda.gov.sa

References:

1. Curran, M. P., & Perry, C. M. (2001). Amisulpride: a review of its use in the management of schizophrenia. *Drugs*, 61(14), 2123–2150. <https://doi.org/10.2165/00003495-200161140-00014>
2. Mayo Clinic. (2022, April 30). Premature ventricular contractions (PVCs). <https://www.mayoclinic.org/diseases-conditions/premature-ventricular-contractions/symptoms-causes/syc-20376757> [Accessed: 04/08/2024].
3. Vigilyze.who-umc.org. 2024. [online] Available at: <https://vigilyze.who-umc.org/> [Accessed: 05/08/2024].
4. World Health Organization WHO (2013). WHO-UMC system for standardised case causality assessment. Available at <https://www.who.int/publications/m/item/WHO-causality-assessment> [Accessed: 05/08/2024].
5. Amisulpride overdose. *React. Wkly.* 1309, 11 (2010). <https://doi.org/10.2165/00128415-201013090-00029>
6. Saudi Drugs Information System (2022). Summary of product Characteristics (Amisulpride). Available at: <https://sdi.sfda.gov.sa/Home/Result?drugId=11745> [Accessed: 05/08/2024].