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Review Article

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MANAGEMENT OF SARS COV2 INFECTION - RELATED DIGESTIVE DISORDERS

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Text

The risk of occurrence of digestive disorders during the treatment of SARS CoV2 infection appeared to be multifactorial. Otherwise, viral infestation may cause digestive symptoms with nausea-vomiting and infectious diarrhea. While treatment with chloroquine (CQ) or hydroxychloroquine (HCQ) in association with Azithromycin (AZT) potentiates its effects, with a different mechanism.

CQ and HCQ are responsible for altering the digestive epithelium via inhibition of the Na+/K+-ATPase pump or potentiation of enterocytic cAMP, thus producing secretory diarrhea. The effects are described in 10%, under Azithromycin are about 1% with an increase in gastrointestinal motricity as a mode of occurrence.

When digestive disorders are severe, they may affect cardiac parameters primarily through the electrolytic disorders which they may generate (hypokalemia in particular), requiring management of Hydroelectrolytic equilibrium.

However, the most significant increase in cardiac risk is the effect of the molecules themselves on the cardiovascular system. Indeed, CQ and HCQ have wellknown cardiac side effects, related to their inhibitory effect on the hERG potassium channels, repolarizing the potential action of cardiomyocytes by potassium efflux in the third phase of the potential action. This effect is associated with a risk of prolongation of the corrected QT interval. on the electrocardiogram. Although this toxicity is dose-dependent and more frequent at high doses or in the case of acute or chronic intoxication (relative overdose), cases of arrhythmias have been reported at therapeutic doses in the existence of risk factors for QT prolongation that may facilitate or precipitate such arrhythmias.

In cases when the prescriber is required to improve digestive disorders, the pharmacological particularity of some molecules must be considered.

For example, Loperamide is an antidiarrheal agent and structural analogue of opioids, which may, at high doses, lead to cardiac effects such as QT interval and QRS complex prolongation, other major ventricular arrhythmias, cardiac arrest and syncope. Furthermore, its mode of action does not appear to be consistent with the mechanism of diarrhea in this context.

Moreover, if nausea and/or vomiting has occurred during treatment based on (QC/HQC+AZT), the use of prokinetic antiemetics such as domperidone, metoclopramide, metopimazine, exposes patients to an increased risk of ventricular rhythm dysfunction.

Hypokalemia is frequently observed in patients infected with SARS CoV2, which may be due to the particular tropism of SARS CoV2 relative to the converting enzyme ACE2. It is therefore essential to monitor for kalemia.

CONCLUSION

- In case of severe diarrhea, racecadotril due to its antisecretory effect, or diosmectite, attapulgite of mormoiron which are adsorbent agents
- In case of persistent nausea and vomiting despite treatment, adsorbent treatment may be recommended in one or two doses at a distance from the treatment.
- In all cases, rehydration with abundant to compensate for fluid losses is recommended.
- A monitoring of Potassium and Magnesium Levels, and correction of any hypokalemia prior to and during administration of the therapeutic protocol.
- Cardiac monitoring in patients with risk factors for QT prolongation, prior to the beginning of treatment, within 3-4 h after the first administration, at day 2 or 3, at the end of treatment and at all times in the presence of symptoms evoking a cardiac rhythm disorder.

CONFLICT OF INTEREST

The authors declares that there is no conflict of interest.

AUTHORS' CONTRIBUTION

All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

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ETHICS STATEMENT

This article does not contain any studies with human participants or animals performed by any of the authors.

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