REFRACTORY LANCE-ADAMS SYNDROME: PHARMACOTHERAPY MANAGEMENT AND IATROGENIC COMPLICATIONS

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BACKGROUND

Lance–Adams syndrome (LAS) is a chronic posthypoxic myoclonus that may appear after a period of cerebral hypoxia. Many different antiepileptic drugs (AED) have been used for the symptomatic control of LAS. In the absence of response to classic AED, it is necessary to consider new off-label therapeutic options which may caue unpredictable adverse events.

PURPOSE

To present the pharmacotherapy approach to a case of refractory LAS, describing treatment related adverse events and its management.

MATERIAL AND METHODS

35-year-old active male smoker with antecedents of three consecutive cardiac arrests that led to the development of LAS

CASE DESCRIPTION

Cerner Millennium®

Clinical information was collected from the electronic medical records

looking for evidence for the use of **perampanel, 5-hydroxytryptophan (5-HT)** and **sodium oxybate** in LAS

LITERATURE REVIEW

EPAR

Adverse events information

RESULTS

AT ADMISSION

- Treated with levetiracetam, sodium valproate
- Sedated with propofol and sodium thiopental.
- Myoclonus was not controlled: piracetam, zonisamide (to reduce the use of sedative drugs) and clonidine were added to the treatment, without improvement.

DURING HOSPITALIZATION

- Sodium oxybate was added, but it was discontinued because of the risk of respiratory arrest.
- 5-HT also was added with no significant outcome and severe diarrhea as an adverse event.
- Perampanel (24 mg/day - maximum daily dose doubled) was added to the treatment achieving myoclonus improvement.
- Simultaneously, the patient had behavioral disorders that were linked with perampanel treatment needing addition of risperidone.

AT DISCHARGE

LAS control was achieved and the patient was discharged with levetiracetam, gabapentin, perampanel and risperidone treatment.

CONCLUSION

- ❑ The refractory nature of LAS forced the medical team to use **off-label drugs and supratherapeutic doses**, with increased frequency of adverse events.
- ❑ The drug related events were identified and properly managed, allowing treatment continuation and ensuring patient improvement.