AMIODARONE-INDUCED NEUROTOXICITY MIMICKING ACUTE CEREBROVASCULAR EVENT: A CASE REPORT

F. Straniero, A. Tetto, M. Distefano, P. Melzi, E. Tagliabue, M. Vaccaro, A. Formenti, G. Gentile, S. Maggiolini, L.Lorusso (H. San Leopoldo Mandic, Merate, ASST Lecco)

INTRODUCTION

- Amiodarone is a class III antiarrhythmic, widely used in atrial fibrillation and ventricular tachyarrhythmias.
- Common adverse effects: thyroid dysfunction, pulmonary toxicity, cutaneous changes.
- Neurological toxicity is underrecognized (ataxia, tremor, neuropathy, rarely nystagmus) and can mimic cerberovascular events.

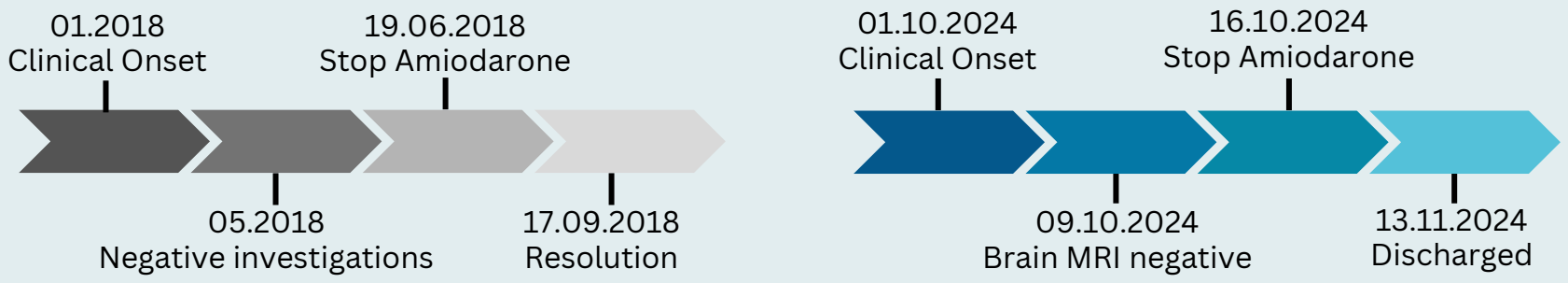

Figure 1: Timeline of two distinct episodes (2018 and 2024) showing similar neurological manifestations after amiodarone initiation, with recovery following drug withdrawal.

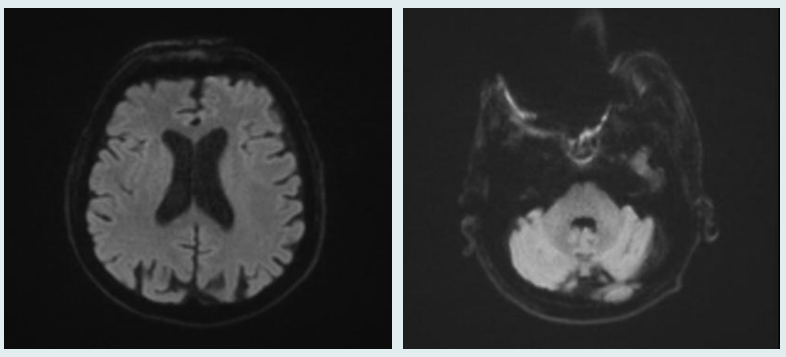

Figure 2: Brain MRI (DWI): no acute ischemic lesions.

CASE REPORT

79-year-old male with cardiovascular risk factors.
Recent start of amiodarone 200–400 mg/day (7 days prior).
Clinical presentation: acute diplopia, dysarthria, vertigo, retropulsion, gait instability, rotatory nystagmus, bilateral dysmetria.
Investigations: CT/CTA/perfusion: negative; Brain MRI: negative; Carotid ultrasound: 60% stenosis L-ICA; Chest CT: aspiration pneumonia (secondary to dysphagia); Labs: leukocytosis, ↑CRP
Symptoms persisted despite negative neuroimaging.
Past history: similar episode in 2018 → full recovery after amiodarone withdrawal
Amiodarone discontinued again → progressive improvement.
Discharge: resolution of nystagmus/ataxia, residual postural instability, physiotherapy planned.

DISCUSSION

Amiodarone: tissue accumulation → broad toxicity profile and long half-life (30–180 days).
Neurological adverse effects: 3–74%.
More common: ataxia, tremor, neuropathy, vertigo.
Rare: nystagmus, dysphagia.
Onset 10 days–10 months after initiation.
Recovery after discontinuation requires weeks/months.
Management: prompt discontinuation of amiodarone.

Key aspects of our case:
- Recurrence after rechallenge → rare in literature.
- Dysphagia with aspiration pneumonia.
- Acute presentation → Stroke mimic.

CONCLUSIONS

- Amiodarone neurotoxicity, though rare, should be considered in elderly patients with new-onset cerebellar symptoms.
- Recurrence after rechallenge reinforces causality.
- Early recognition and drug discontinuation can prevent complications such as aspiration pneumonia.

REFERENCES

- ESC Guidelines on atrial fibrillation (2020).
- Singh BN. Amiodarone: pharmacology & toxicology. J Cardiovasc Pharmacol, 1999.
- Harjai KJ, Licata AA. Amiodarone & thyroid, pulmonary, neurological toxicity. Am Heart J, 1997.
- Charness ME, Morady F. Neurologic complications of amiodarone. Neurology, 1984.
- Recent case reports: amiodarone-induced ataxia, nystagmus, dysphagia (2010–2020).