

# LONG LASTING PONTINE WARNING SYNDROME: A CASE REPORT

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## BACKGROUND

Stroke warning syndrome (SWS) is a rare cause of stroke characterized by stereotyped, crescendo, recurrent, and short-lasting episodes of transient focal neurological deficits leading up to infarction. Basing on clinical findings and neuroimaging, it can be defined capsular, pontine (PWS), or callosal.

## CASE PRESENTATION

**History:** a 74-year-old man with a medical history of hypertension, type 2 diabetes, smoker and HIV positive in treatment. He experienced an acute episode of anarthria that lasted 10 minutes with spontaneous regression. An other similar, but more lasting, event with associated right facio-brachio-crural hemiplegia recurred after 3 hours. He underwent tPA treatment with complete resolution of symptoms. Brain CT, CT-angiography and MRI (figure 1) were negative. Antiplatelet therapy with clopidogrel was started and the patient was discharged.

After 11 days from the first episode, the patient experienced other 6 stereotyped episodes lasting from 5 to 30 minutes. He was admitted to our Stroke Unit where at least other 6 episodes were observed. After the last episode there was no regression of symptoms.

**Investigation:** brain CT with CT-angiography (figure 2) and CDUS were normal; brain CT perfusion was also negative. Finally, brain MRI diffusion imaging after the last episode showed a small left pontine ischaemia (figure 3 and figure 4) .

**Management:** dual antiplatelet therapy (clopidogrel and ASA) was started. After two months, the patient recovered completely.

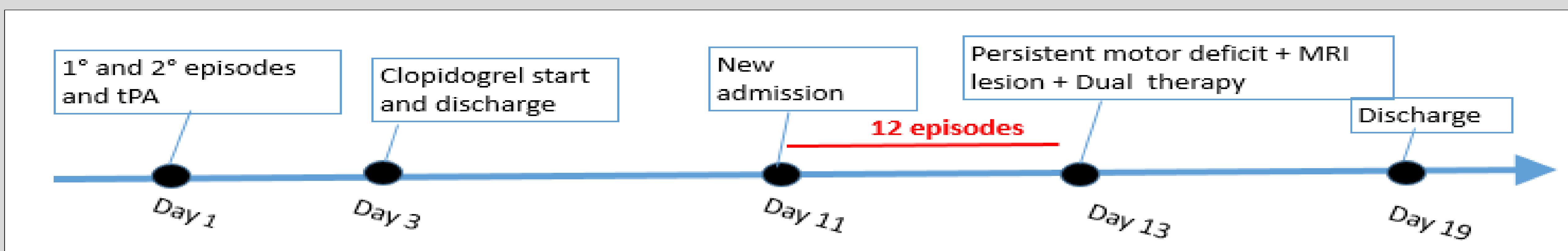


figure 1

figure 2

figure 3

figure 4



## DISCUSSION AND CONCLUSION

- PWS is an uncommon entity and the onset with anarthria is rare. Symptoms usually occur and last discontinuously for hours or, less frequently, days, while **in our case they recurred for two weeks**.
- There is no consensus on an effective treatment for SWS. Despite various options are available, it is unclear whether these therapies alter the natural course of the syndrome. Data about effectiveness of tPA in SWS are still controversial. Otherwise, case series suggest that dual antiplatelet therapy may be beneficial.
- We discussed an unusual presentation of PWS. Atheromatosis and lipohyalinosis of penetrating vessels in association with hemodynamic changes due to variation of blood pressure is thought to be the predominant mechanism underlying SWS, but complete pathophysiology is still to be defined. Consequently, there is no consensus about treatment options. In our report, thrombolysis and dual antiplatelet therapy may have been effective in preventing long-term deficits.

## REFERENCES

- 1) Tassi R., et al. Stroke warning syndrome: 18 new cases. J Neurol Sci 2013.
- 2) Nadarajan V., et al. Capsular warning syndrome. BMJ Case Rep 2013.