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EC NEUROLOGY
Mini Case Study

A Rare Case of Stroke Mimics Resembling Neuroinfection Not to be Missed

Genc Struga*, Beniel Vincent, Ibrahim Hewila, Heather Ironside, Abdelrahman Idris Salih Khalid and Nuno Lobato Ribeiro

Worcestershire Royal Hospital, Worcester, United Kingdom

***Corresponding Author:** Genc Struga, Worcestershire Royal Hospital, Worcester, United Kingdom.

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Background

Stroke mimics are very important to be diagnosed, is it seen that more frequent are brain tumours especially gliomas and meningioma's. Metabolic changes can mimic stroke more frequently hypoglycaemia while in infection disorders meningoencephalitis [1]. The migraine can mimic stroke even without headaches. The demyelisation should also be considered where appropriate this is the reasons that expertise of stroke physician should extend to other areas of neurology especially vertigo, headache, seizures. Conversional disorders but also neuroinfection [2].

Our aim in this case discussion is to present a very rare case of stroke mimics.

History and examination: A 42 years old lady, presented 7 weeks ago with subacute onset of left arm weakness 4/5, right facial droop, at that time she was mobile with support. The patient had NIHSS 4 and NEWS 3. She was suffering from anxiety attacks and been in bed most of the time. A severe mouth thrush was noticed during the admission and peripheral lymph node enlargement. She is a current smoker with 7 cigarettes a day and further history revealed that she has been unwell over the past few weeks with very poor appetite and weight loss. She has a past medical history of miscarriages, smokes about 7 a day, no family history of cancers. The patient was emigrant in UK and proved to be vulnerable with safeguarding issue.

Investigations: Bloods 8/1- CRP 31, Gamma GT 299, ALT 460, Alk Phos 276, Na 138, K 4.4, Ur 5.5, Cr 88, Hb 108, WCC 4.6, Neutro 2.9. CT head imaging showed low density are in left basal ganglia, thalamus and midbrain a further MRI head with contrast enhancement indicated bilateral thalamic lesions with partial ring enhancement. A carotid ultrasound scan was normal she was put in 24 hours heart monitoring which reveals no abnormalities of cardiac rhythm. A follow up MRI brain with contrast showed: increasing in the size with of the previously noted lesion with extension to the upper midbrain and more vivid enhancement. The screening for HIV revealed positive patients. A Further CSF sample showed: High protein, lymphocytosis and toxoplasma DNA have been detected. Fundus Examination excluded CMV retinitis, her CD4 were low.

MRI head with contrast 23.11.2021

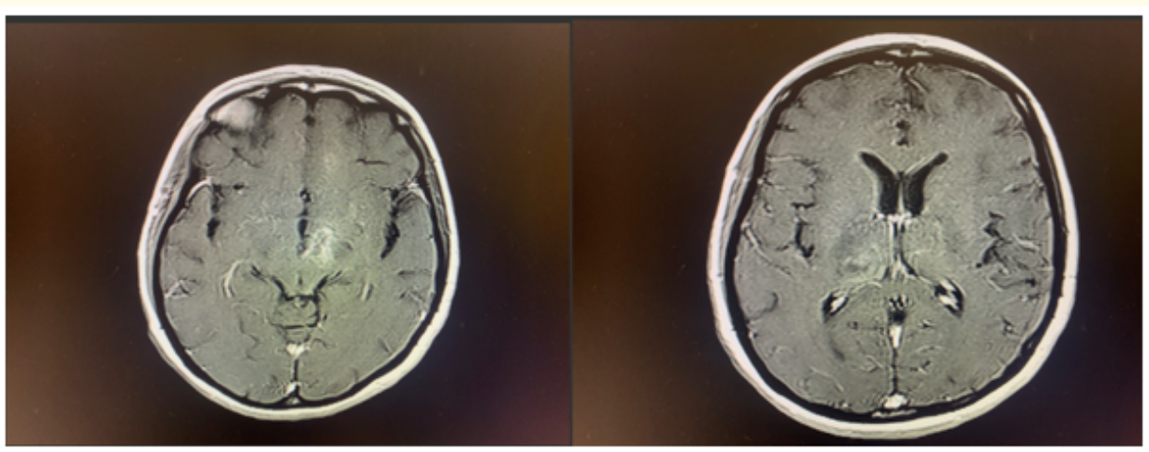

Figure 1

MRI head with contrast 01.12.2021

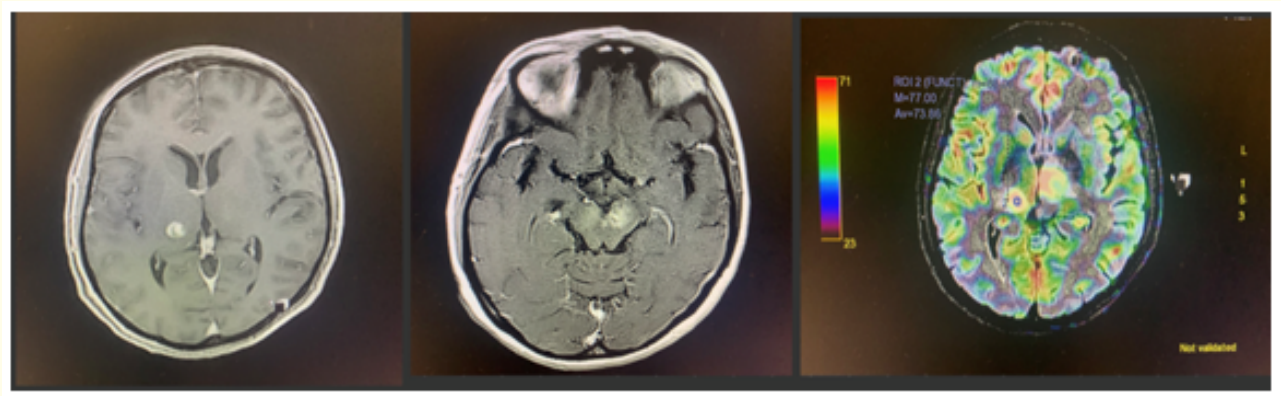

Figure 2

MRI head with contrast 30.12.2021

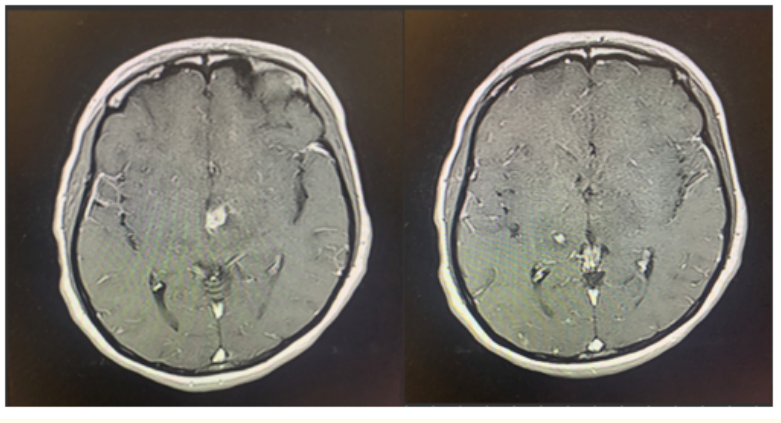

Figure 2

Differential diagnosis was between stroke and space occupying lesion. Initial differentials were: GBM, metastasis or inflammatory cause.

Diagnosis and evolution: Her condition progressed to involve the left side of the body and left eye involvement in the form of ptosis and exotropia. The ring enhancement lesion having in mind her subacute presentation, the severe mouth thrush suspected immunosuppression, the HIV screening revealed positive patients. In consultation with Infectious diseases consultant and neuro-radiologist the suspicion of neuro-infection was high and patients was decided to be under treatment for neuro toxoplasmosis. She was commenced on sulphadiazine and pyrimethamine including retroviral.

A reduction of intracranial lesions was seen in subsequent MRI imaging, this was not reflected in her general wellbeing because of AIDS and collateral effect of treatment in her liver and subsequent skin rash. Patient also has focal lung lesion with mediastinal lymph node spread been where tuberculosis was excluded. Overall her situation remains complicated further to a lesson to be learnt for a very rare stroke mimics.

Conclusion

The imaging modalities during stroke in young adult should be extended with MRI special sequences diffusion-weighted imaging and in case that territory of suspicion does not correspondent with vascular involvement further studies like contact enhancement gadolinium might be required. This requires senior neuroradiologist expertise in good cooperation with neurology and stroke clinical evaluation which in our case raised the suspicion of neuro-infection and requirement for further exploration. Further management of this case resembling AIDS and neuro-infection was a challenge that required multiteam work including safeguarding.

The other point to consider is an increase Stroke risk in patients HIV which can be because of uncontrolled viremia that produce inflammation but also opportunistic infections and low CD4 level [3].

Bibliography

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