

Neuroimaging in c-ANCA positive granulomatosis with polyangiitis

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BACKGROUND

C-ANCA positive granulomatosis with polyangiitis (GPA) is a necrotizing vasculitis involving small vessels that causes multisystemic granulomatous inflammation and can affect the central nervous system. It requires radiological diagnosis but there are not pathognomonic findings in the neuroimaging.

We aim to present the unusual case of a GPA patient whose intracranial duplex showed characteristic changes.

METHODS

A 52 year old woman is admitted to the emergency room presenting right facial palsy, motor aphasia and right hemiparesis. NIHSS 8. CT scan shows intracerebral haemorrhage in right basal ganglia. c-ANCA +.

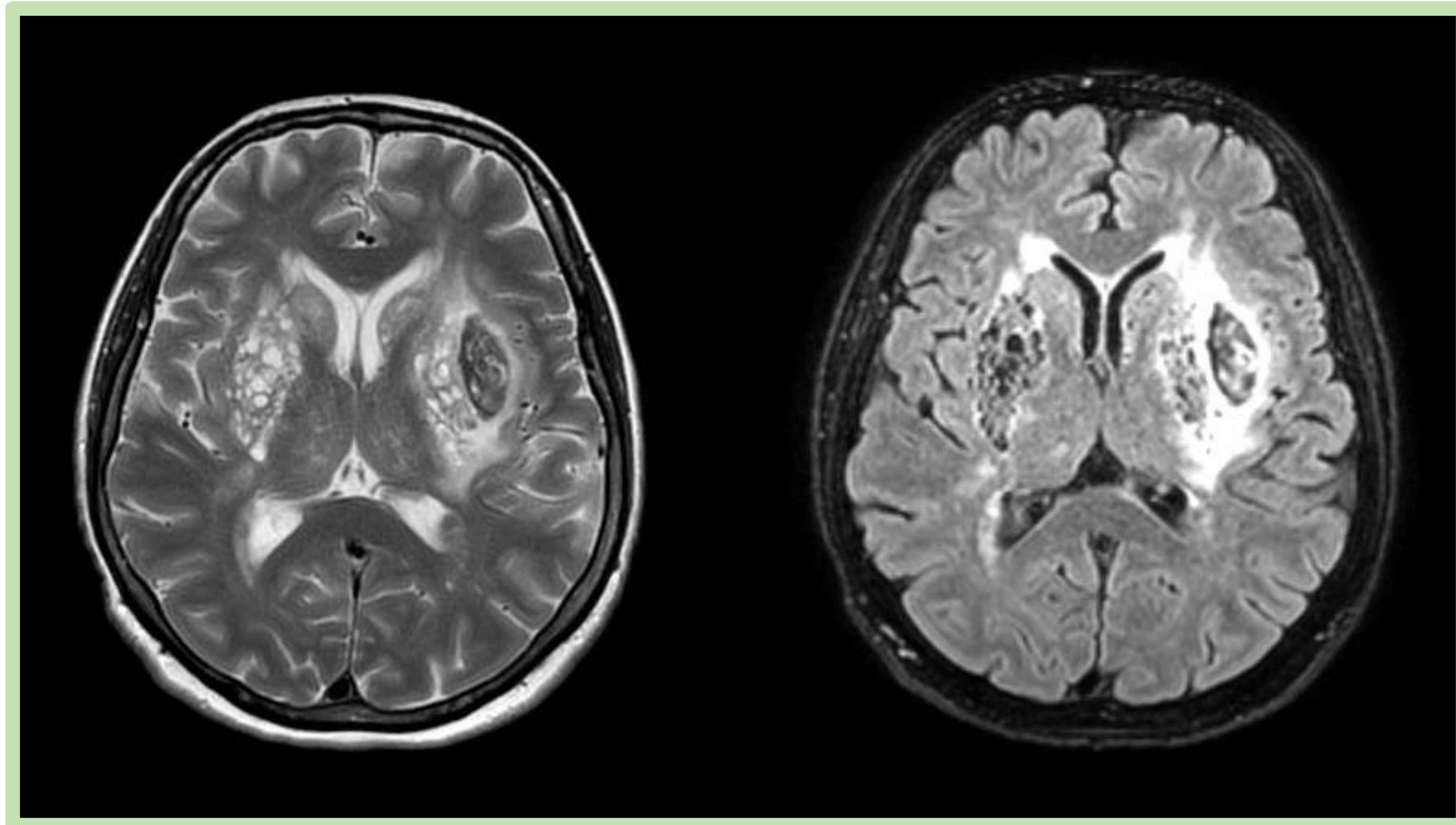


Figure 1. MRI: Multiple T2-hyperintense basal ganglia lesions, presented as hypointense areas on T1-weighted and FLAIR sequences in relation to prominent perivascular spaces.

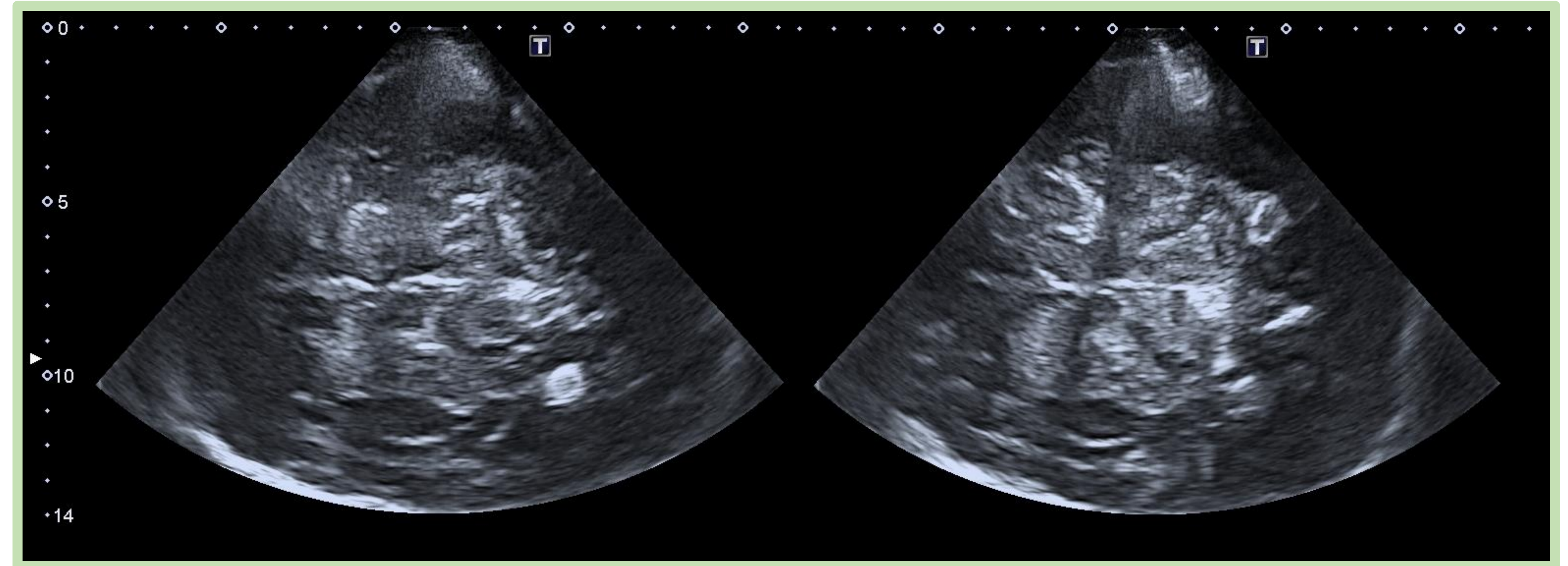


Figure 2. Transcranial duplex: cerebral parenchyma shows hyperechogenic echostructure around the basal ganglia due to the presence of multiple perivascular spaces dilatations.

RESULTS

GPA can provoke dilated perivascular spaces that can be detected not only in MRI but also in transcranial duplex.

CONCLUSIONS

The usefulness of neurosonology in extracranial vasculitis is well known, however; transcranial duplex had generally only been used to measure velocimetric parameters.