

# Auditory agnosia in a patient with nephrotic syndrome

Matteo Boattini,<sup>1</sup> Giorgia Arnone,<sup>2</sup> Gaetano Procaccianti<sup>2</sup>

<sup>1</sup>Department of Internal Medicine, Santa Marta's Hospital, Lisbon, Portugal  
<sup>2</sup>Stroke Unit, Ospedale Maggiore, Bologna, Italy

**Correspondence to**  
Dr Matteo Boattini,  
matteoboattini@gmail.com

## DESCRIPTION

A 70-year-old woman with nephrotic syndrome (NS) secondary to membranous glomerulonephritis on immunosuppressive therapy, diabetic nephropathy and hypertension presented with sudden hearing impairment.

She had lost the ability to understand speech and transiently expressed some meaningless words. Reading and writing skills were preserved, and she was able to understand written commands.

Audiometry revealed mild bilateral sensorineural hearing loss.

Brain MRI showed a recent left temporal ischaemic lesion (figure 1; white arrow) and right temporal, left occipital and left cerebellar old ischaemic infarcts (figure 1; yellow, green and red stars, respectively). Routine laboratory tests showed low serum albumin, hyperlipidaemia, normal renal function and proteinuria. Doppler ultrasound revealed normal supra-aortic vessels blood flow. No embolic arrhythmia was documented.

A diagnosis of verbal auditory agnosia (AA) due to bilateral ischaemic temporal stroke was made. Neuropsychological evaluation was performed in order to plan an intensive speech rehabilitation programme. The patient's clinical condition improved progressively.

AA can be caused by ischaemic or haemorrhagic stroke, viral infection, traumatic head injury, cerebral congenital malformations or tumours. Cortical ischaemic stroke is more commonly caused by atherothrombotic or thromboembolic events. Diabetes and hypertension drive atherosclerosis, resulting more frequently in lacunar infarcts. NS is an additional hypercoagulable state leading to thrombosis that contributed to cause recurrent

strokes in our patient, and this is why anticoagulation treatment was started.

Thrombosis in patients with NS occurs more frequently than in the general population.<sup>1,2</sup> The risk of thrombosis is related to the degree of hypoalbuminaemia and is higher in patients with membranous nephropathy.<sup>1-3</sup> The optimal management of hypercoagulability in nephrotic syndrome is controversial. Anticoagulation treatment should be considered and individualised on the basis of the presence of associated thrombotic events and the risk of bleeding.

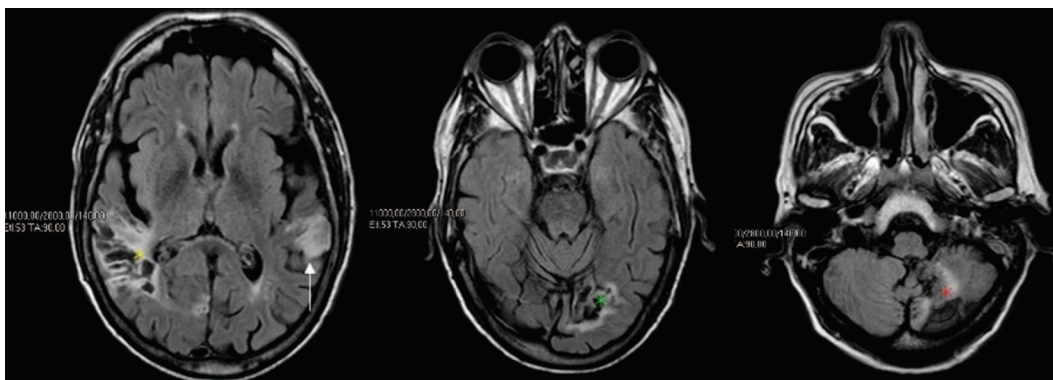
## Learning points

- ▶ Auditory agnosia is a rare neuropsychological disorder that is characterised by a relatively isolated deficit in auditory processing, despite adequate hearing.
- ▶ Ischaemic or haemorrhagic stroke, viral infection, traumatic head injury, brain congenital malformations or tumour which affect temporal lobes bilaterally or, less frequently, unilaterally can cause auditory agnosia.
- ▶ The risk of thrombosis in patients with nephrotic syndrome is related to the degree of hypoalbuminemia and it is higher in patients with membranous nephropathy.

**Competing interests** None.

**Patient consent** Obtained.

**Provenance and peer review** Not commissioned; externally peer reviewed.



**Figure 1** Brain MRI showing a recent left temporal ischaemic lesion.

**To cite:** Boattini M, Arnone G, Procaccianti G. *BMJ Case Reports* Published Online First: [Please include Day Month Year] doi:10.1136/bcr-2012-008164

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