

# Opercular Syndrome: A Case Report

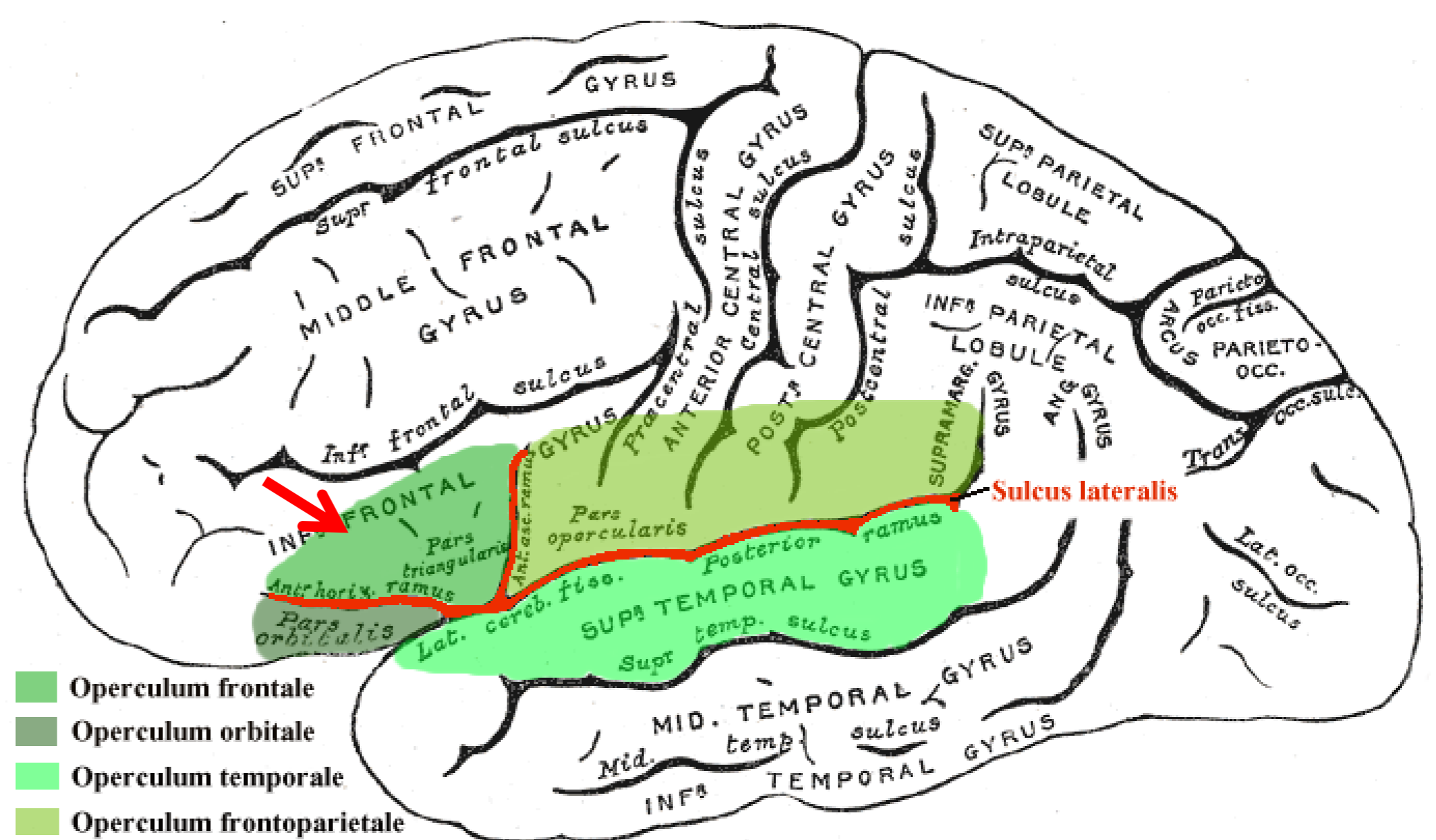
Giovanna De Michele, Elena Salvatore, Marco Massarelli, Alessandro Filla

Department of Neurosciences and Reproductive and Odontostomatological Sciences,  
Federico II University, Naples

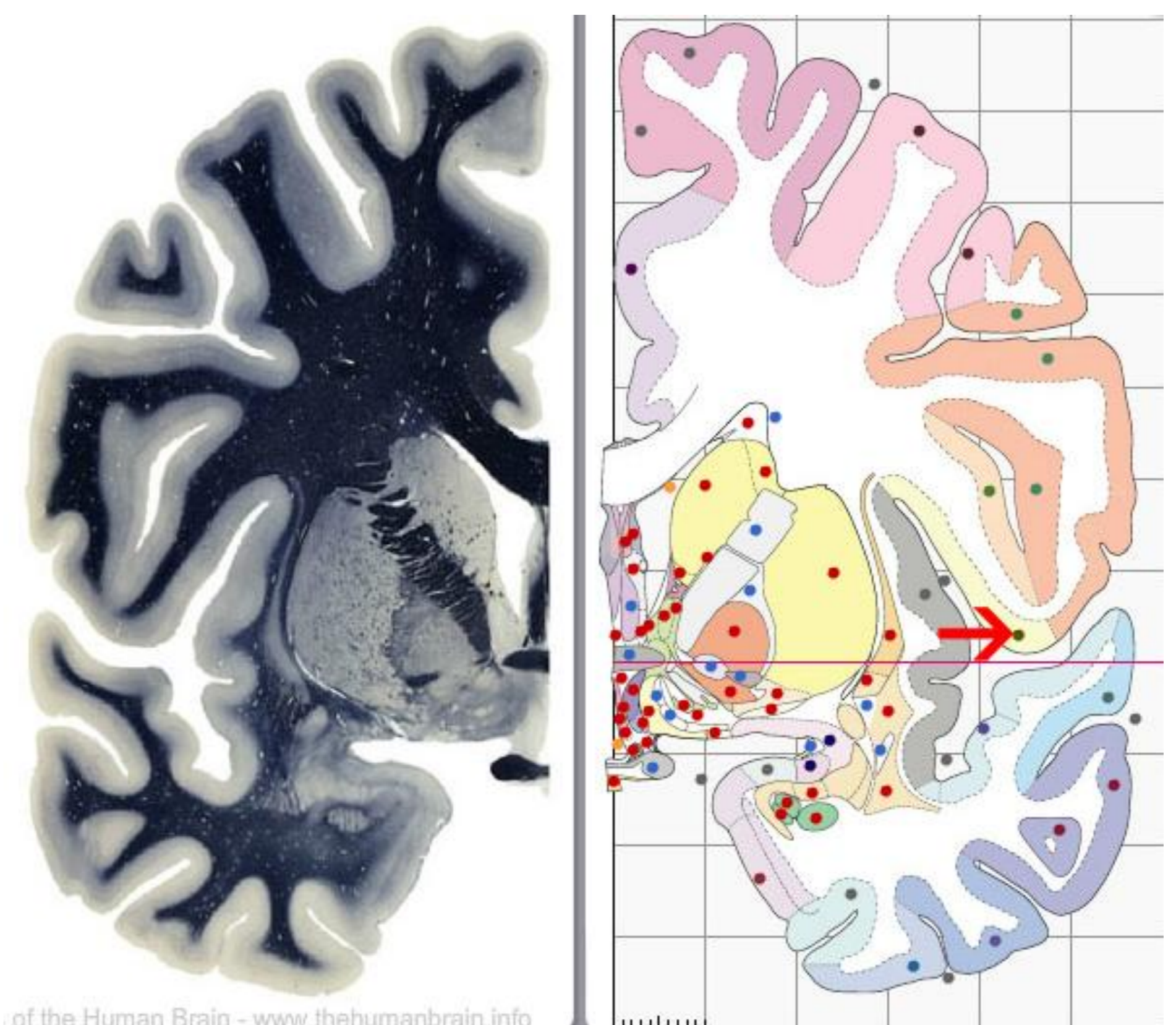
**Objectives:** To describe a case of Opercular Syndrome (OPS), a rare form of facio-pharyngo-glosso-masticatory diplegia with preservation of reflex and automatic functions, usually associated with bilateral lesions of the anterior part of the frontal operculum.<sup>1</sup>

**Case Report:** A 67 year-old right-handed woman woke up during the night and found that she was not able to swallow water and to speak. Her past medical history was remarkable for hypertension, permanent atrial fibrillation with mitral mechanical valve. A first vascular event, causing left brachial weakness and mild hypophonia, occurred when she was 63 years old. On examination, she was able to understand spoken and written language, but neither to speak, nor to protrude her tongue, nor to swallow. She also had bilateral central facial palsy, with preserved involuntary facial movements, and emotional incontinence, with episodes of laughing and crying. A CT-scan revealed an acute left frontal opercular infarct, old bilateral frontal ischemic lesions, and diffuse cerebral atrophy. MRI brain was not performed because of claustrophobia.

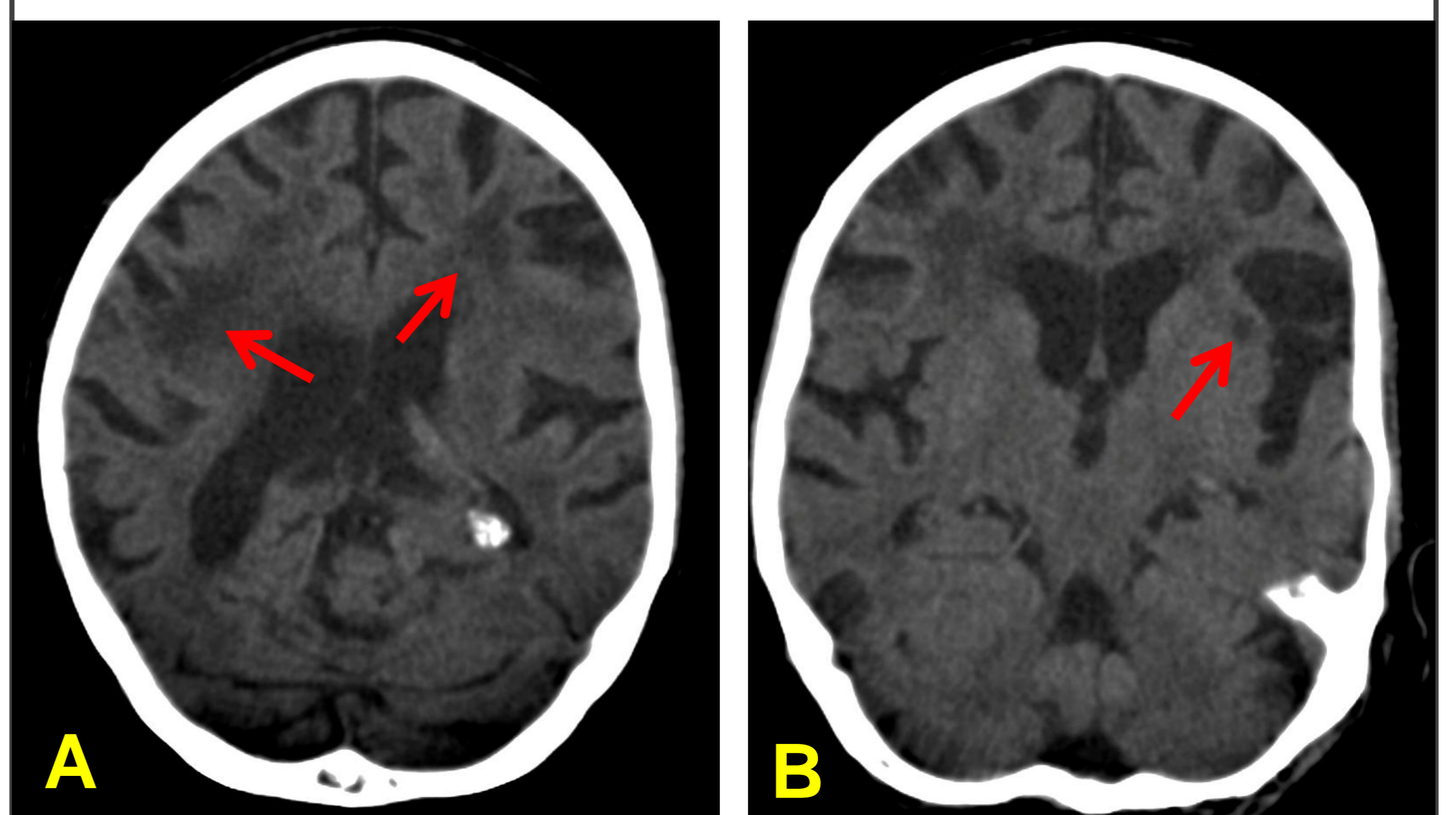
**Discussion:** In the OPS the connections between the motor cortex and the V, VII, IX, XII cranial nuclei are interrupted. Emotional and spontaneous movements are preserved, because they are mediated by different pathways involving extrapyramidal connections, thalamus and hypothalamus (“automatic-voluntary dissociation”). The aetiology in most cases is vascular, involving branches of middle cerebral artery. Since speech and swallowing are under bilateral cortical control, classically, OPS is caused by bilateral lesions, but unilateral lesions have also been reported.<sup>2</sup> In our case OPS was caused by the combination of the new left frontal opercular infarct with the old right frontal infarct. Prognosis in OPS is usually poor, especially in bilateral lesions. In this case there was partial and progressive recovery.



Lateral view of the frontal operculum



Coronal view of the frontal operculum



CT brain scan showing old right and left frontal lesions (A) and subacute left fronto-opercular ischemic lesion (B).

## Bibliography

Foix C, Chavany JA, and Marie J, “Diplegie facio-linguo-masticatrice d’origine cortico-sous-cortical sans paralysie des membres” Revue Neurologique 1926;33:214–9.  
Brandão E, Ferreria A, Leal Loureiro J, “Anterior biopercular syndrome caused by unilateral infarction”, Acta Med Port. 2013;26:177-9.