

## Do we suspect it enough?

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### OBJECTIVES

The relationship between some depressive disorders and a cerebral vascular component has been established in the past: it may develop after an acute cerebrovascular event (termed "post-stroke depression") or may develop in association with chronic ischemic changes in the brain (termed "vascular depression"). We provide the clinical experience derived from three patients with severe depression and who showed resistance to conventional antidepressant treatments taken at their maximum dose and in combination.

### METHODS

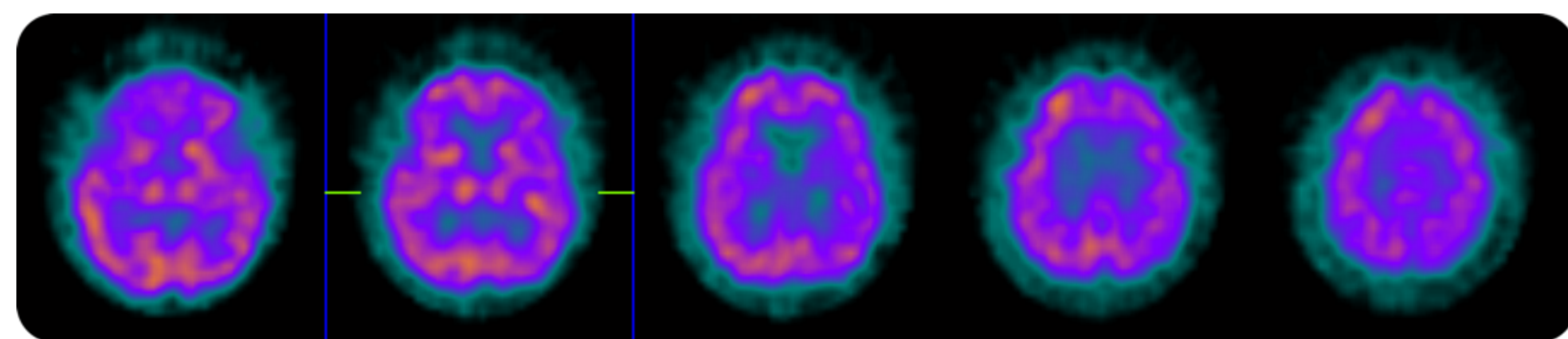
Three male patients aged between 56 and 66, diagnosed with severe depression according to CIE 10 criteria, who presented resistance to several antidepressants at maximum dose and in combination ( detailed later ) on who we decided to perform a cerebral perfusion SPECT with 740 MBq-99mTc-HMPAO with the intention of ruling out alterations in cerebral perfusion.

### RESULTS

In our three cases studied by SPECT 740 MBq-99mTc-HMPAO the following results were observed:

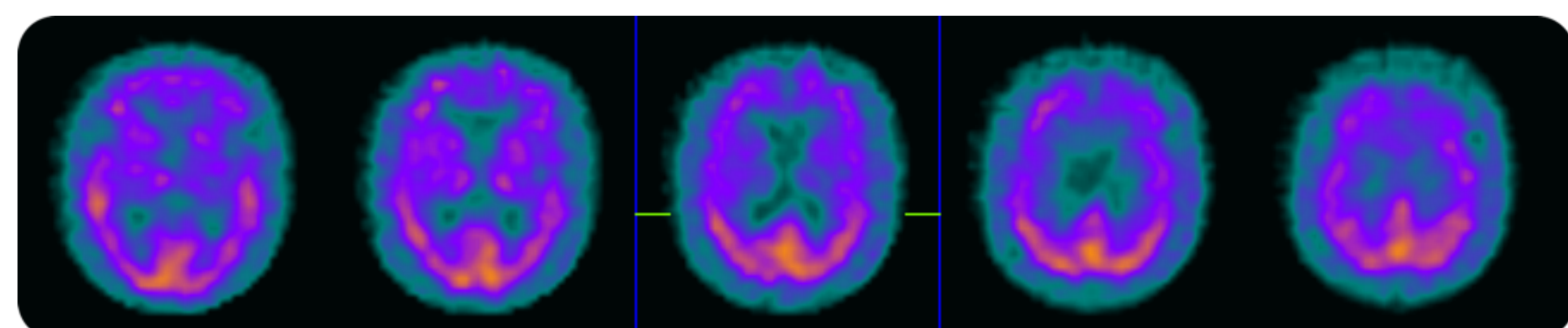
**Patient #1:** Male, age 59, severe depression, severe anxiety, resistance to Desvenlafaxine 200 mg in combination with: Mirtazapine 30 mg Or Ziprasidone 80 mg Or Olanzapine 10 mg Or Quetiapine 100 mg. Also resistant to Lithium Carbonate. Remains unresponsive.

**...heterogeneous distribution and discrete bilateral diffuse frontal hypoperfusion with respect to the rest of the cortical gray matter...**



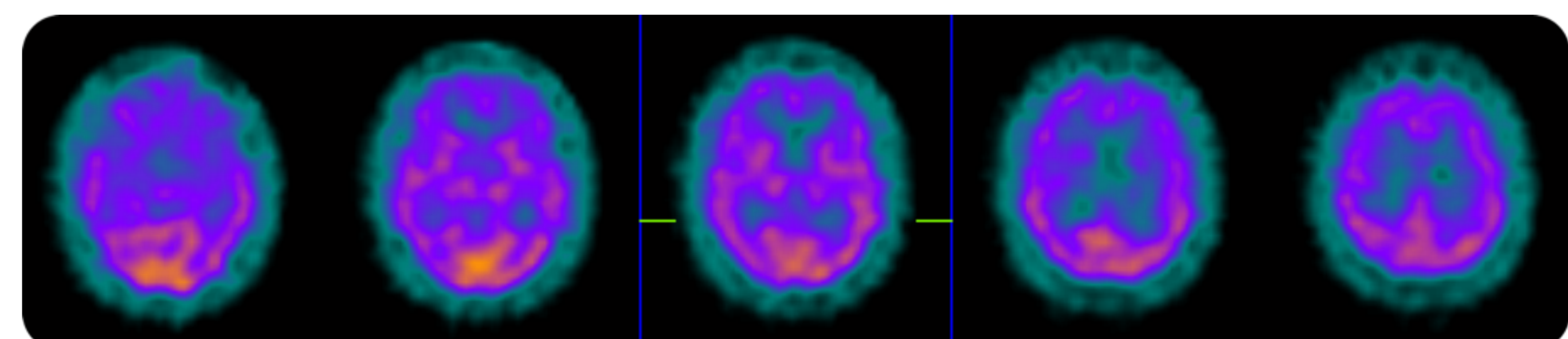
**Patient #2:** Male, age 66, melancholic symptoms, deliroid cognitions, resistance to: Escitalopram 20 mg, Venlafaxine RTD 225 mg in combination with Bupropion 300 mg Or Mirtazapine 30 mg. Responds to: Lithium Carbonate.

**...cortical thinning and an overall decrease in perfusion of cortical gray matter (frontal-temporal predominance), where there is greater heterogeneity...**



**Patient #3:** Male, age 56, anergic depression, noticeable problems in day-to-day activities and self care. Resistance to Venlafaxine 350 mg in combination with Bupropion 300 mg and Quetiapine 100 mg and Ziprasidone 80 mg. Also resistant to Metilphenidate 36 mg. Remains unresponsive.

**...slight cortical thinning with a heterogeneous distribution of the tracer in the cortical gray matter, without evidence of frontal predominance hypoperfusion...**



### CONCLUSIONS

Perfusion defects were found at cortical levels: although in two patients such defects could be located at the frontal lobes, in one patient no frontal predominance was observed, although there was heterogeneity of the tracer. Two of the three patients also had cortical atrophy, which role in the depression cannot be established. These findings are congruent with suspected vascular depression in these patients, and we suggest to suspect this component in resistant depressions. We suggest further investigation for proper management of resistant depressions.