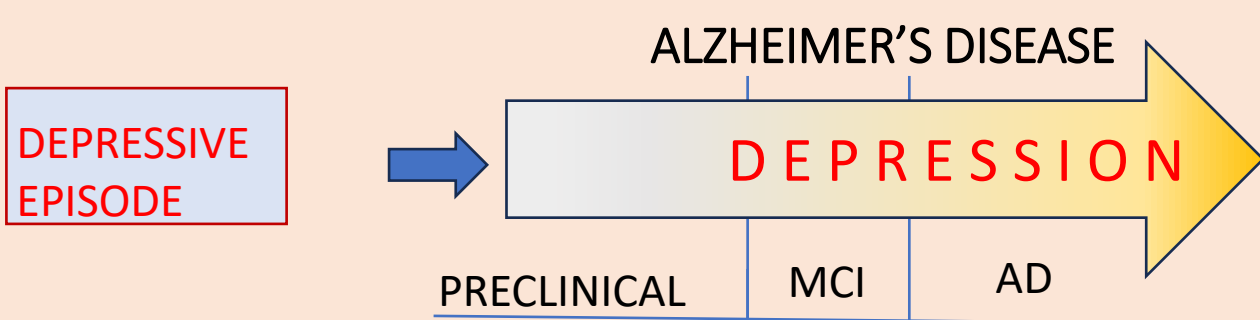


THE USE OF VISUAL RATING SCALES IN THE DISCRIMINATION BETWEEN  
ALZHEIMER'S DISEASE AND DEPRESSION

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## INTRODUCTION &amp; AIM



CAN WE SEPARATE THEM???

*Journal of Neurology, Neurosurgery, and Psychiatry* 1992;55:967–972Atrophy of medial temporal lobes on MRI in  
“probable” Alzheimer’s disease and normal  
ageing: diagnostic value and neuropsychological  
correlatesPh Scheltens, D Leys, F Barkhof, D Huglo, H C Weinstein, P Vermersch, M Kuiper,  
M Steinling, E Ch Wolters, J Valk

doi:10.1093/brain/115.5.967

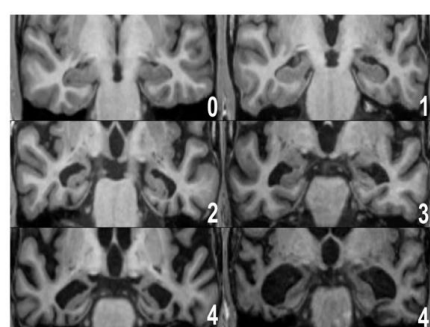
BRAIN 2016; 139: 1211–1222

BRAIN  
A JOURNAL OF NEUROLOGYMRI visual rating scales in the diagnosis of  
dementia: evaluation in 184 post-mortem  
confirmed casesLorna Harper,<sup>1</sup> Giorgio G. Fumagalli,<sup>2</sup> Frederik Barkhof,<sup>3</sup> Philip Scheltens,<sup>4</sup>  
John T. O’Brien,<sup>5</sup> Fenneke Bouwman,<sup>6</sup> Emma J. Burton,<sup>6</sup> Jonathan D. Rohrer,<sup>7</sup>  
Nick C. Fox,<sup>8</sup> Gerard R. Ridgway,<sup>9,10</sup> and Jonathan M. Schott<sup>1,11</sup>

Neurology (2009) 72, 405–407

DOI: 10.1093/brain/awp423

DIAGNOSTIC NEURORADIOLOGY

Development of an MRI rating scale for multiple brain  
regions: comparison with volumetrics and with voxel-based  
morphometryR. Byles Davies, Victoria L. Scallan, Andrew Graham,  
Guy B. Williams, Kim S. Graham, John R. HodgesReceived: 22 November 2008 / Accepted: 4 March 2009 / Published online: 24 March 2009  
© Springer-Verlag 2009ASSESS THE ROLE OF VISUAL  
SCALES IN THE DDX AD/DEP

## METHOD

- RETROSPECTIVE STUDY
- 113 AD+DEP, 139 DEP
- 3 YEARS FOLLOWING UP
- GDS>10,MMSE>23
- 13 ROIs (Frontal, temporal, Hippo)
- 2 RATERS (DS,PT)→VISUAL SCALE
- ATROPHY (0→4)
- Binary Logistic Regression Model

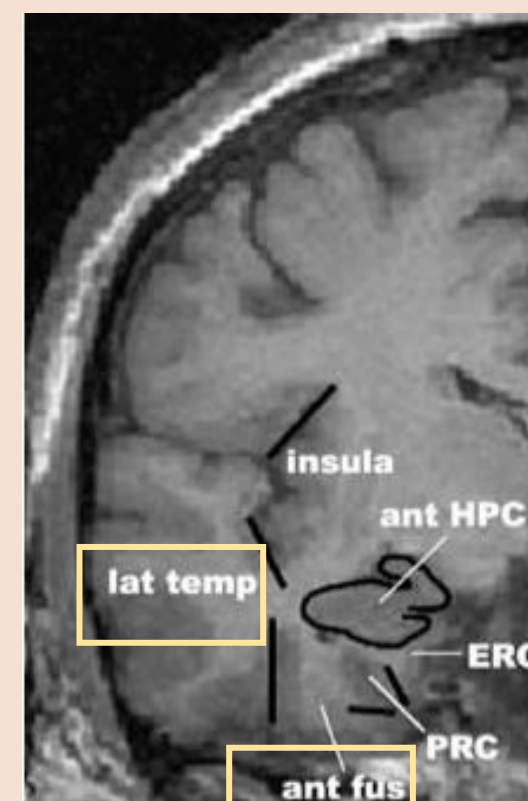
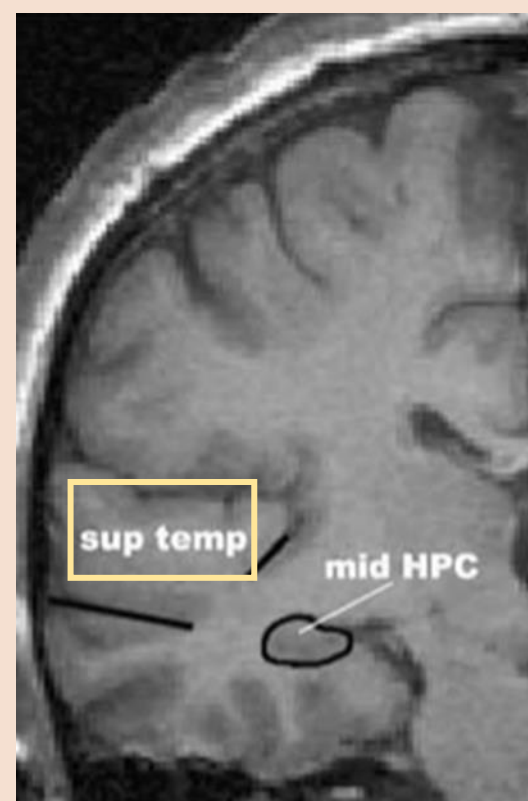


## RESULTS &amp; DISCUSSION

- Significantly more severe atrophy for AD
- HIPPO BILATERALLY
- ANTFUS R
- LATTEMP R, SUPTEMP R
- FRONTAL AREAS WERE NOT INCLUDED

**Table 3.** Results from multiple logistic regression analysis for the discrimination of AD from DPR  
+Odds Ratio (95% Confidence Interval)

|                   | OR (95% CI)+       | P      |
|-------------------|--------------------|--------|
| Gender            |                    |        |
| Males (reference) |                    |        |
| Females           | 0.41 (0.13 – 1.27) | 0.121  |
| Age (years)       | 1.21 (1.10 – 1.32) | <0.001 |
| Educational years | 1.37 (1.15 – 1.62) | <0.001 |
| ACE_R             | 0.75 (0.68 – 0.82) | <0.001 |
| FAZEKAS           | 0.53 (0.27 – 1.03) | 0.060  |
| HIPPO (Left)      | 2.25 (1.01 – 4.98) | 0.046  |
| ANTFUS (Right)    | 2.67 (1.07 – 6.67) | 0.035  |
| LATTEMP (Right)   | 2.69 (1.21 – 5.91) | 0.016  |
| HIPPO (Right)     | 3.41 (1.50 – 7.73) | 0.003  |
| SUPTEMP (Right)   | 2.66 (1.01 – 6.98) | 0.047  |



## CONCLUSION

Visual rating scales offer a useful method to distinguish between AD  
and depression in clinical practice.

## AUTHORS-FUTURE WORK

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VISUAL RATING SCALES IN THE LATE LIFE DEPRESSION