



Metabolic syndrome and localization of white matter hyperintensities in the elderly population.

Florence Portet, Adam M. Brickman, Yaakov Stern, Nikolaos Scarmeas, Jordan Muraskin, Frank A. Provenzano, Claudine Berr, Alain Bonafé, Sylvaine Artero, Karen Ritchie, et al.

► To cite this version:

Florence Portet, Adam M. Brickman, Yaakov Stern, Nikolaos Scarmeas, Jordan Muraskin, et al.. Metabolic syndrome and localization of white matter hyperintensities in the elderly population.. Alzheimer's & Dementia: the Journal of the Alzheimer's Association, 2012, 8 (5 Suppl), pp.S88-95.e1. 10.1016/j.jalz.2011.11.007 . inserm-00715982

HAL Id: inserm-00715982

<https://inserm.hal.science/inserm-00715982>

Submitted on 9 Jul 2012

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

APPENDIX

Table A: Factors associated with total WMH volumes categorized in tertiles

	WMH volumes		p-value
	Low levels (<0.7 mL)	High levels (≥0.7 mL)	
Median, (25 th -50 th percentile)	0.30, (0.10-0.40)	1.75, (0.80-1.75)	
Women, %	53.7	52.0	0.76
Age, m (SD)	70.2 (3.7)	72.1 (4.1)	<10 ⁻⁴
No academic qualification /primary school, %	17.5	19.6	0.85
Current smokers, %	7.5	8.8	0.92
Use of lipid lowering drugs, %	22.5	25.0	0.60
Performances in MMSE, m (SD)	27.8 (1.4)	27.5 (1.6)	0.10
ApoE4 genotype (heterozygote), %	17.5	23.6	0.18
Total cranial volume (ml), m (SD)	1460.6 (127.0)	1467.7(129.3)	0.63

MMSE: mini mental state examination; ApoE4: ε4 allele of the Apolipoprotein E (having at least one copy), WMH: white mater hyperintensities.
M (SD): means (standard deviation)

Table B: Association between each MetS components and total WMH volumes.

MetS criteria	Total n, % exposed	Levels of WMH volumes	
		OR (95% CI) of having high levels of WMH volumes (≥ 0.7 mL)*	p
Central obesity	292, 18.1%	1.57 (0.84;2.94)	0.16
High Triglycerides	308, 14.9%	1.25 (0.65; 2.39)	0.50
Low HDL-cholesterol	308, 8.1%	1.81 (0.77;4.27)	0.17
Hypertension	304, 80.6%	1.87 (1.00; 3.50)	0.05
High FBG	324, 9.4%	1.14 (0.51; 2.56)	0.75
Number of MetS criteria	288	1.31 (1.01-1.71)	0.04

WMH: White matter hyperintensities, MetS: Metabolic Syndrome, HDL: high density lipoprotein, FBG : Fasting Blood Glucose

OR (95% CI) : odds ratio accompanied with its 95% confidence interval,

* Odds ratio adjusted for age at baseline (by year), sex, educational attainment, smoking, use of lipids lowering drugs MMSE scores, allele $\epsilon 4$ of apolipoprotein E and total cranial volume - Results of logistic regression models -