AS16-001. PREVALENCE AND PREDICTORS OF 3-MONTH FATIGUE IN PATIENTS WITH TIA AND MINOR STROKE: A CASE-CONTROL STUDY.

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Background and Aims: The persistent and significant fatigue affects the daily life of major-stroke survivors, but the evidence suggests that transient ischemic attack (TIA) and minor stroke patients also experience significant fatigue. There are some population-based studies examining the prevalence of fatigue in patients with minor stroke and TIA very few studies of predictors of fatigue in these ones. This study aimed to determine if fatigue prevalence in TIA patients is different to population controls, and to explore predictors of fatigue.

Results: The prevalence of substantial fatigue was 72.8% (23.5% in controls) and extreme fatigue was 20,7% (0.0% in controls) in patients with minor stroke or TIA (p < 0.0001). There are not was a clear association between fatigue and age (OR 1.00; IC95%: 0.96-1.04). The only baseline variables independently associated with an increased risk of fatigue at 3 months after stroke were gender male, hypertension, dyslipidemia and physical inactivity.

Table. Clinical Characteristics Between Cases and Controls. Univariate Analysis.

	Controls (n=89)	Cases (n=92)	p
• Age, y, mean (SD)	58.3 (7,7)	59.5 (8.2)	0.317
• Male sex, n(%)	37 (43,0%)	66 (72.5%)	< 0.0001
• Body Mass Index, mean (SD)	27 (4,1)	28(3,9)	0.166
• Rural residence, n(%)	55 (61.8%)	44 (47.8%)	0,073
Education			
• Primary school and below (%)	20 (22.5%)	38 (41.3%)	0.005
• Middle and high school (%)	58 (65.2%)	51 (55.4%)	
• Bachelor and above (%)	11 (12.4%)	3 (3.3%)	
Physical activity previous stroke			
• Sedentary (%)	14 (15.7%)	24 (26.1%)	<0.0001
• Light intensity (%)	44 (49.4%)	62 (67.4%)	
• Moderate intensity (%)	31 (34.8%)	6 (6.5%)	
Medical history			
• Hypertension (%)	30 (33.7%)	54 (58.7%)	0.001
• Hyperlipidaemia (%)	28 (31.5%)	40 (43.5%)	0.125
• Diabetes (%)	14 (15.7%)	28 (30.4%)	0.022
• Atrial fibrillation (%)	8 (9.0%)	11 (12.0%)	0.630
• Coronary heart disease (%)	1 (1.1%)	12 (13.0%)	0.002
• Smoking (%)	33 (37.1%)	59 (64.8%)	<0.0001
• Depression (%)	11 (12.4%)	5 (5.4%)	0.121
• Family history of stroke (%)	27 (30.3%)	25 (27.2%)	0.743
• Family history of dementia (%)	24 (27.0%)	26 (28.6)	0.869
Fatigue			
• FAS, mean (DS)*	18,5 (4.2)	30.4 (5.6)	< 0.0001
• FAS physical, mean (SD)	9,89 (2.6)	16.1 (2.8)	< 0.0001
• FAS mental, mean (SD)	8.68 (2.7)	14.4 (3.4)	< 0.0001
• None (%)	65 (76.5%)	6 (6.5%)	< 0.0001
• Substantial fatigue (%)	20 (23.5%)	67 (72.8%)	
• Extreme fatigue (%)	0 (0.0%)	19 (20.7%)	

Methods: Ninety-two consecutive patients with minor stroke or TIA were compared with 89 controls of the same age. The Fatigue Assessment Scale (FAS) was administered to both groups to compare prevalence.

The FAS is a 10-item general fatigue questionnaire to assess fatigue. Five questions reflect physical fatigue and 5 questions (questions 3 and 6-9) mental fatigue. FAS scores 10 – 21: no fatigue (normal); FAS scores 22 – 50: substantial fatigue. Two subgroups: (fatigue: scores 22-34 and extreme fatigue: scores ≥ 35)

The Minimal Important Difference (MCID) is at least 4 points or 10% change of the baseline value (*).

Multivariate logistic regression analysis was used to determine predictors of fatigue development three months post-vascular event.

Table. Univariate logistic regression analysis was used to determine predictors of fatigue development

Fatigue	OR	IC95%	p
Age	1.002	0.965-1.040	0.913
Sex	2.715	1.450-5.084	0.002
Physical inactivity	2.151	1.307-3.541	0.003
Body Mass Index	1.037	0.961-1.119	0.345
Hypertension	2.140	1.153-3.974	0.016
Hyperlipidaemia	2.731	1.404-5.312	0.003
Diabetes	1.852	0.872-3.933	0.109
Atrial fibrillation	0.912	0.347-2.393	0.851
Smoking	2.544	1.370-4.725	0.003

Table. Multivariate logistic regression analysis was used to determine predictors of fatigue development

Fatigue	OR	IC95%		p
Age	1.0	0.927	1.015	0.194
Sex	2.408	1.178	4.920	0.016
Physical inactivity	1.957	1.140	3.358	0.015
Body Mass Index	1.019	0.936	1.110	0.659
Hypertension	2.432	1.045	5.658	0.039
Hyperlipidaemia	2.224	1.021	4.842	0.044
Diabetes	0.601	0.221	1.634	0.318
Atrial fibrillation	0.934	0.306	2.854	0.905
Smoking	1.916	0.939	3.908	0.074

Figures. Relation between FAS score and Physical activityintensity, broken down by sex.

Conclusions: Minor stroke and TIA patients had higher prevalence of fatigue three months after stroke than the general population sample, which may be partly explained by the stroke population being in poorer health overall. Dyslipidemia, hypertension, physical inactivity, and gender male were independent clinical predictors of fatigue.