

## P5345

# Association and prevalence of post-stroke erectile dysfunction with cardiovascular risk factors and co-morbidities

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**Objectives:** The aim of this study was to establish a correlation between prevalence and severity of erectile dysfunction (ED) and cardiovascular (CV) co-morbidities and ongoing medication and other risk factors associated with post-stroke ED.

**Materials and methods:** For 153 patients (57.04±6.54 years) with ischemic stroke, we evaluated the pre- and post-stroke prevalence of ED using the five-item International Index of Erectile Function questionnaire (IIEF5).

Erectile Function questionnaire (IIEF5). Within 5 days of admission we determined the stroke site location and severity using the National Institute of Health Stroke Scale (NIHSS). The pre- and post-stroke data obtained were compared with those of 30 control non-stroke patients (52.27±8.35). Additional cardiovascular co-morbidities, medication and risk factors were assessed and analyzed.

**Results:** The IIEF5 scores were much lower [median 17 interquartile range (IQR) 10–20] post stroke than pre-stroke (median 22 IQR 12–23) and lower than in control group (median 22.5 IQR 21–24).

From the analysis of comorbidities and risk factors for stroke of post-stroke group and the control group, we infer that diabetes (p=0.003), hypercholesterolemia (p<0.001), and hypertension (p<0.001) were more common in patients with stroke than those in the control group. (Table 1).

From the statistical analysis of data on medication use by patients, results that more patients have used ACE inhibitors, calcium antagonists, beta blocking agents, diuretics, statins, oral agents, antiplatelet and oral anticoagulants after the stroke than before, and in terms of consumption of drugs before stroke compared with the control group, differences were not significant.

**Conclusions:** The prevalence and severity of ED increase after stroke due to disruption of autonomous central structures. The depression, functional impairment, CV co-morbidities and medication used after stroke may contribute to ED.

	Lot 1 post-stroke patients	Lot 2 pre-stroke patients	Lot 3 control group	P values [1 vs 3]	P values [2 vs 3]	P values [1 vs 2]
No. of Patients	153	153	30			
Age, mean ± SD	57.04±6.54	57.04±6.54	52.27±8.35			
Patient with ED, N (%)	127 (83%)	76 (49.67%)	9 (30%)	<0.001	0.048	<0.001
Severity of ED, N (%)						
Mild	74 (48.37%)	29 (18.95%)	7 (23.33%)	0.015	0.581	<0.001
Mild to moderate	1 (0.01%)	11 (7.19%)	1 (3.33%)	0.302*	0.694*	0.127*
Moderate	28 (18.30%)	21 (13.73%)	1 (3.33%)	0.052*	0.134*	<0.001*
Severe	24 (15.69%)	15 (9.80%)	0	0.016*	0.136*	<0.001*
IIEF5 (Erectile function)						
Mean ± SD	15.53±5.89	17.83±6.18	21.83±3.31	<0.001	<0.001	<0.001
Median (Q1–Q3)	17 (10–20)	22 (12–23)	22.5 (21–24)			
Hamilton Score						
Normal	91 (59.4%)	144 (94.1%)	23 (76.6%)			
Mild depression	40 (26.1%)	1 (0.6%)	5 (16.6%)			
Moderate depression	11 (7.1%)	0 (0.0%)	1 (3.3%)			
Severe depression	9 (5.8%)	6 (3.9%)	1 (3.3%)			
Very severe depression	2 (1.3%)	2 (1.3%)	0 (0.0%)			
Comorbidities						
Diabetes mellitus	59 (38.5%)		3 (10.0%)	0.003*		
Hypercholesterolemia	104 (67.9%)		6 (20.0%)	<0.001		
Hypertension	121 (79.0%)		8 (26.6%)	<0.001		
Obesity	36 (23.5%)		6 (20.0%)	0.674		
Smoking	53 (34.6%)		5 (16.6%)	0.056*		
Atrial fibrillation	22 (14.3%)		2 (6.6%)	0.377*		
Carotid artery stenosis	18 (11.7%)		1 (3.3%)	0.321*		
Coronary heart disease	26 (16.9%)		1 (3.3%)	0.086*		
Medication						
ACE inhibitors	72 (47.0%)	32 (20.9%)	2 (6.6%)	<0.001*	0.075*	<0.001
Calcium Antagonists	49 (32.0%)	17 (11.1%)	4 (13.3%)	0.047*	0.755*	<0.001
Beta-Blokers	65 (42.4%)	36 (23.5%)	3 (10.0%)	0.001*	0.142*	<0.001
Diuretics	43 (28.1%)	14 (9.1%)	3 (10.0%)	0.039*	>0.999*	<0.001
Statins	99 (64.7%)	25 (16.3%)	4 (13.3%)	<0.001*	0.791*	<0.001
Oral antidiabetics	39 (25.4%)	25 (16.3%)	1 (10.0%)	0.007*	0.084*	0.442
Insulin	20 (13.0%)	15 (9.8%)	0 (0.0%)	0.048*	0.136*	0.369
Antiplatelet drugs	131 (85.6%)	14 (9.1%)	2 (6.6%)	<0.001*	>0.999*	<0.001
Oral anticoagulants	22 (14.3%)	8 (5.2%)	0 (0.0%)	0.028*	0.357*	0.007
Antidepressants	28 (18.3%)	12 (7.84%)	2 (6.6%)	0.176*	>0.999*	0.007