

Influencia del ejercicio físico sobre la función cognitiva en pacientes tras sufrir un ictus. Revisión bibliográfica

Tabla I. Elementos de la pregunta PICO. Elaboración propia

P Paciente o problema	I Intervención	C Intervención de comparación (si procede)	O Resultados/ variable de resultado
Pacientes que han sufrido un ictus	Entrenamiento físico	O no	Mejora la función cognitiva

Tabla II. Términos empleados en la búsqueda bibliográfica. Elaboración propia.

	Lenguaje libre	Sinónimos	DeCs	MesH
Paciente	Ictus	ACV Agudo, Accidente Cerebral Vascular	Accidente cerebrovascular	Stroke
Intervención	Entrenamiento físico	Ejercicio, Ejercicio Aeróbico, Entrenamiento Físico	Ejercicio físico	Exercise
Comparación	No aplica	No aplica	No aplica	No aplica
Outcomes	Función cognitiva	Función cognitiva	Cognición	Cognition

Tabla III. Resultados de las mediciones de la función cognitiva en el grupo de intervención y grupo control, antes y después de llevarse a cabo el programa de ejercicios.

	Aerobic Exercise		Balance and Flexibility		<i>p</i> -values		
	Baseline	Post	Baseline	Post	Differences in Differences change scores over time ^a	by group ^b	Effect size
	<i>n</i>	Median (IQR)	<i>n</i>	Median (IQR)			
Verbal Digit Span Test, <i>n</i> digits							
Forward	22	8 (5–9)	25	7 (5–10)	0.04	0.49	-0.10
Backward	22	3 (0–6)	25	2 (2–4)	0.91	0.18	-0.20
Trail Making Test B, <i>s</i>	19	128.9 (90–179)	25	161.0 (95–249)	0.54	0.68	-0.06
Color-Word Stroop Test, <i>s</i>	20	108.5 (100–144)	24	131.7 (110–188)	0.98	0.38	-0.13

^aWilcoxon Signed Rank test, ^bMann-Whitney *U* test. IQR: interquartile range.

Tabla IV. Resultados de las mediciones de la función cognitiva en el grupo de intervención y grupo control, antes y después de los 18 meses del programa de ejercicios.

Outcome	Intervention group (<i>n</i> =177)		Control group (<i>n</i> =185)		Between-group differences, change from baseline to 18 months ^a	
	Baseline Mean (SE) [<i>n</i>]	18 months Mean (SE) [<i>n</i>]	Baseline Mean (SE) [<i>n</i>]	18 months Mean (SE) [<i>n</i>]	Estimate (95% CI)	<i>p</i> -value
TMT A	60.5 (2.9) [156]	70.1 (4.2) [133]	64.4 (2.6) [169]	66.0 (3.3) [139]	8.54 (0.74 to 16.3)	0.032
TMT B	149.4 (7.4) [132]	155.8 (9.7) [108]	169.8 (7.9) [142]	161.3 (12.0) [101]	8.6 (-16.5 to 33.6)	0.50
MMSE	27.9 (0.2) [176]	27.5 (0.3) [143]	28.0 (0.2) [182]	27.5 (0.3) [156]	-0.1 (-0.8 to 0.6)	0.77
HADS A	3.6 (0.3) [177]	3.6 (0.3) [149]	3.7 (0.3) [180]	3.8 (0.3) [157]	-0.2 (-0.9 to 0.5)	0.56
HADS D	2.9 (0.2) [177]	3.7 (0.2) [149]	3.5 (0.2) [180]	3.9 (0.3) [157]	-0.1 (-0.7 to 0.5)	0.76

^aRegression coefficient for treatment group in regression analysis, adjusted for age, sex, stroke severity (modified Rankin scale at inclusion), hospital site and the baseline measure of the relevant variable (TMT A, TMT B, MMS, HADS A or HADS B).

SE: standard error; CI: confidence interval; MMSE: Mini Mental State Examination; TMT A: Trail Making Test A; TMT B: Trail Making Test B; HADS: Hospital Anxiety and Depression Scale; HADS A: HADS Anxiety; HADS D: HADS Depression.

Anexo 3 (11). Resultados de las mediciones de la función cognitiva al inicio del estudio, tras la intervención y 6 meses después.

Assessment	Group	Baseline	Post-intervention	After six months	Within-group significant (change baseline to post-intervention, %)	Between-group significance
Trail Making Part B (seconds)	TT (n=44)	182.77 (22.53)	167.34 (23.94)	171.90 (21.18)	-7.12%, F=9.91, P<0.003	TT vs. CO, t=2.50, P=0.027
	PE (n=42)	190.51 (24.37)	178.56 (25.77)	189.91 (22.18)	-4.77%, F=5.18, P=0.028	
	CT (n=45)	185.64 (19.63)	175.91 (21.95)	186.32 (24.45)	-3.99%, F=4.20, P=0.028	
	CO (n=47)	186.66 (29.10)	183.30 (32.54)	189.97 (23.79)	-0.52%, F=0.292, P=0.591	
Stroop (ms)	TT (n=44)	120.17 (9.45)	114.52 (8.07)	116.77 (8.74)	-4.11%, F=8.82, P=0.005	TT vs. CO, t=3.45, P=0.026
	PE (n=42)	121.78 (12.07)	119.77 (13.78)	120.28 (11.58)	-0.96%, F=0.413, P=0.683	
	CT (n=45)	119.57 (7.57)	117.95 (9.43)	118.15 (8.00)	-0.88%, F=0.710, P=0.404	
	CO (n=47)	122.29 (6.65)	121.11 (11.43)	121.81 (10.30)	-0.72%, F=0.402, P=0.529	
Forward digit span	TT (n=44)	7.66 (1.09)	8.52 (1.23)	8.25 (1.10)	13.41%, F=13.19, P=0.001	TT vs. CO, t=5.030, P=0.000 TT vs. PE, t=3.750, P=0.003 CT vs. CO, t=3.083, P=0.005
	PE (n=42)	7.26 (1.27)	7.64 (0.93)	7.24 (1.14)	2.18%, F=0.303, P=0.585	
	CT (n=45)	7.49 (0.94)	8.18 (1.43)	7.69 (1.14)	10.14%, F=10.72, P=0.003	
	CO (n=47)	7.55 (1.58)	7.36 (0.90)	7.40 (1.01)	0.88%, F=1.253, P=0.269	
Mental rotation	TT (n=44)	5.93 (1.37)	6.64 (1.28)	6.52 (1.27)	17.36%, F=7.50, P=0.009	TT vs. CO, t=2.746, P=0.020 TT vs. PE, t=2.301, P=0.032 TT vs. CT, t=2.005, P=0.048
	PE (n=42)	5.78 (1.14)	5.81 (1.97)	5.71 (2.73)	2.65%, F=0.006, P=0.939	
	CT (n=45)	6.33 (1.19)	6.13 (1.08)	6.18 (1.31)	0.71%, F=1.145, P=0.291	
	CO (n=47)	6.13 (1.31)	5.96 (1.04)	6.06 (1.03)	0.87%, F=0.707, P=0.491	

TT: combination of both trainings; PE: physical exercise; CT: cognitive training; CO: control group. Data represented as mean (SD).