TIME DEPENDENT BENEFIT IN HOSPITAL ATTENTION FOR STROKE

PATIENTS NOT RECEIVING REPERFUSION THERAPIES

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INTRODUCTION

Time is a key factor for the success of both thrombolysis and thrombectomy, as described in clinical trials and in observational studies, but the role of prehospital delay (PD) in the prognosis of patients who don't qualify for reperfusion therapies has rarely been addressed. We conducted a study to investigate if a sooner hospital arrival (PD < 3 hours) favors functional independency (mRS < 2) three months after a stroke..

METHODS

284 Patients with acute stroke (TIA excluded) who didn't receive thrombolysis nor thrombectomy were prospectively included. Sociodemographic factors, premorbid conditions, and clinical, biochemical and hematological parameters that were considered as possible prognostic factors were collected, as well as data on PD. Multivariate logistic regression analyses were conducted to identify factors related to achieving functional independency three months after stroke.

RESULTS

Table 1. Sample Characteristics

Variable	Total (n=382)	PD <180' (n=186)	PD>180' (n=196)	p
Age (Mean;y)	73,9	73,5	74,3	ns
Sex (Male;%)	54,2	52,2	56,1	ns
TIA (%)	19,1	22,0	16,3	ns
Etiology (%)				
Atherothrombotic	13,4	12,4	14,3	0,001
Cardioembolic	24,9	30,6	19,4	
Lacunar	23,3	17,7	28,6	
Other	6,5	9,1	4,1	
Undetermined	20,7	17,2	24,0	
Haemorrhagic	11,3	12,9	9,7	
OCSF (%)				
TACI	13,9	21,61	6,8	<0,001
Previous mRS≤2	79,3	80,7	78,1	ns
NIHSS (Mean)	5,64	7,78	3,61	ns
Hypertension (%)	74,6	76,9	72,5	ns
Diabetes Mellitus (%)	36,1	36,6	35,7	ns
Dyslipidemia (%)	42,9	44,1	41,8	ns
Atrial Fibrillation (%)	15,7	20,4	11,2	0,013
Ischemic Heart Disease (%)	15,2	16,7	13,8	ns
Hemoglobin (Mean;g/dL)	13,8	13,9	13,8	ns
Albumin (Mean;mg/dL)	3,9	3,9	3,9	ns

Table 2. Prognostic factors for independency 1 year after stroke

Variable	OR	IC 95%	P
PD ≤ 180	5,478	1,998 – 15,018	0,001
Sexo (male)	2,674	1,098 – 6,493	0,030
Triglycerides	1.010	10.001 – 1.019	0,036
Onset NIHSS	0,829	0,755 – 0,910	<0,001
Active Smoking	0,182	0,050 – 0,658	0,009
Infectious comorbidity	0,132	0.042 – 0.416	0,001
previous mRS	0,226	0,150 – 0,342	< 0,001

Figure 1. Previous mRS

Figure 2. Onset mRS

Figure 3. mRS at discharge

Figure 4. mRS 3 months after onset

CONCLUSIONS

Time is a key prognostic factor for patients undergoing reperfusion therapies as well as for those who don't qualify for them. Future interventions should be directed towards increasing the number of patients arriving the hospital in the first three hours, which would not only increase thrombolysis and thrombectomy rates, but also help achieving functional independency three months after stroke.

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