

Prediction of relapse after a first episode of psychosis: a follow-up clinical study

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Background

Relapse rate after a first episode of psychosis is about 30 to 60% during the first two years, and about 80% at five years. Relapses increase the risk of subsequent relapse, are associated with progressive gray matter loss, interfere significantly with social development and increase the cost for treatment. Our study aims to determinate the factors predicting relapse in a sample of first episode subjects followed since 2007.

Methods

We prospectively recruited 128 subjects since their first episode of psychosis. Clinical evaluations including PANSS, SUMD, cannabis use, among others, were done at baseline, 2 months, 6 months, one year, two years and three years. Survival analysis using cox regression was carried out to find out the variables related to a posterior relapse. The variables initially included in the model were: As dependent variable, time from the onset of psychosis to relapse or last evaluation. As predictive variables sex, age at onset, cannabis use at baseline, cannabis use since first episode (joints per week), duration of untreated psychosis (days), Global Assessment functioning at month 2 (after first episode), score of three global items of SUMD at two months, and apparent treatment adherence during all the follow-up period.

Results

Relapse rate was 26.4% at 6 months, 32.7% at one year and 56.8% at two years. Amongst the initial 128 subjects, 62 had all the variables included in the survival model fulfilled. Cannabis use since first episode and treatment adherence were the variables that survived both backward and forward cox regression modelling. Table 1 shows univariate correlation p values of all variables before entering the model. Table 2 and figure 1 resume the results of the backward step regression model.

Table 1: p values of univariate correlation analysis. Variables not in the Equation^a

	Score	df	Sig.
Sex (male/female)	0.639	1	0.424
Age	1.279	1	0.258
Cannabis (weekly use at onset)	5.165	1	0.023
Cannabis (mean weekly use before relapse)	30.859	1	0.000
DUP (days of untreated psychosis)	0.337	1	0.562
GAF	0.031	1	0.861
SUMD (sum of three global items at two months follow up)	0.418	1	0.518
Treatment adherence (category 0)	8.851	2	0.012
Treatment adherence (category 1)	5.090	1	0.024
Treatment adherence (category 2)	3.039	1	0.081

a. Residual Chi Square = 46,086 with 9 df Sig. = ,000

Figure 1: Survival Function at mean of covariates

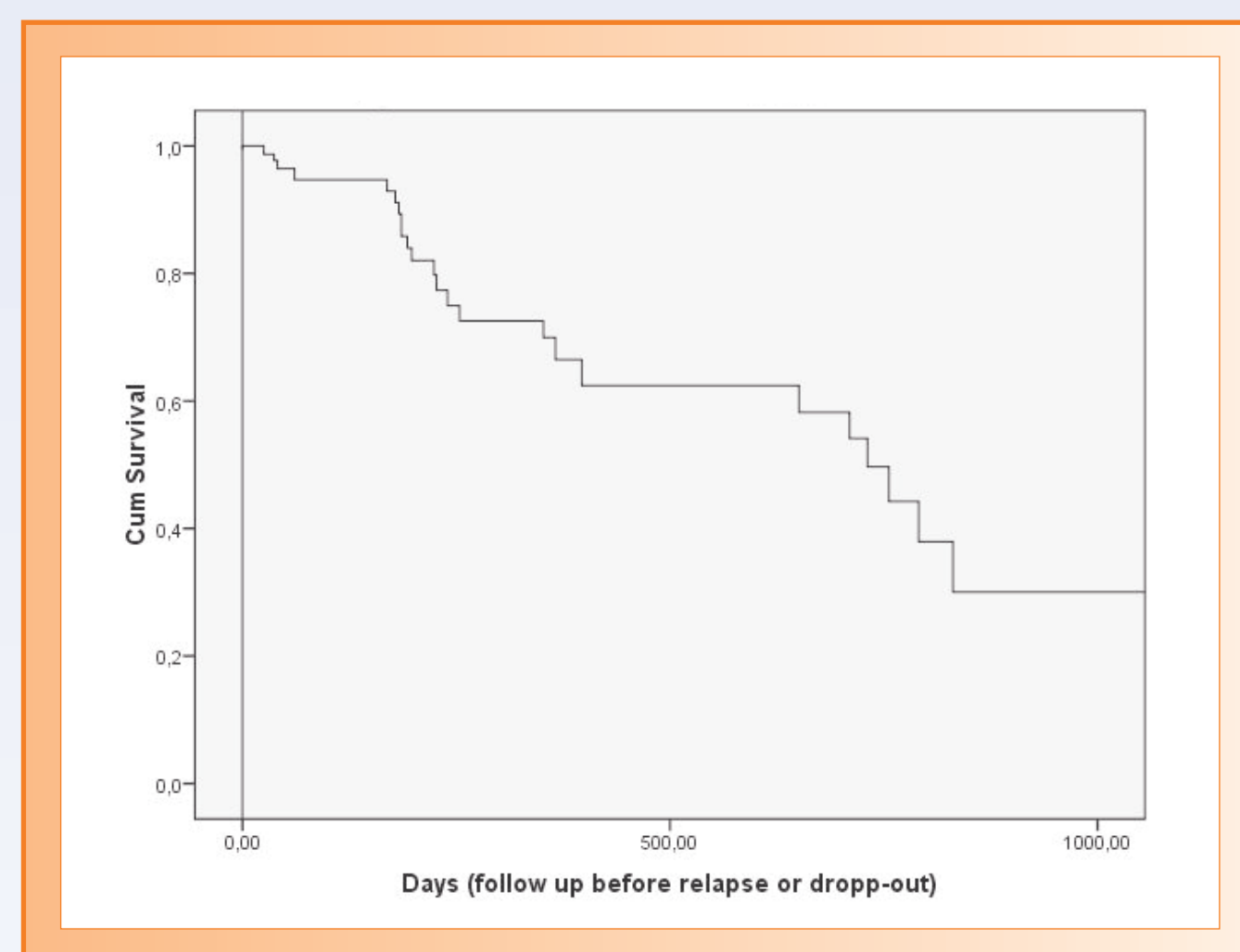


Table 2: Results of the backwards step model. Variables in the Equation

	B	SE	Wald	df	Sig.	Exp(B)
Step 1 Cannabis (mean weekly use before relapse)	0.528	0.120	19.400	1	0.000	1.695
Step 2 Cannabis (mean weekly use before relapse)	0.523	0.127	16.963	1	0.000	1.687
Treatment adherence (category 0)			7.891	2	0.019	
Treatment adherence (category 1)	2.148	0.792	7.348	1	0.007	8.564
Treatment adherence (category 2)	0.539	0.424	1.619	1	0.203	1.714

Discussion

Cannabis use and treatment adherence after a first episode of psychosis may predict a second episode. Specific first episode programs should reinforce these aspects to decrease relapse and improve outcome.

Six patients included in another coordinated study were excluded from the sample.
Disclosure information: The authors declare that they do not have any conflicts of interest.