# Predictors of diagnosis of non-affective acute remitting psychosis in patients with early-onset first psychotic episodes

*L. Pina-Camacho[a]*, *M. Parellada[a]*, *J. García-Prieto[b]*, *J. Castro-Fornieles[c]*, *A. Gonzalez-Pinto[d]*, *M. Graell[e]*, *S. Otero[f]*, *D. Moreno[a]*, *C. Arango[a]*

[a] Child and Adolescent Psychiatry Department, CIBERSAM, Instituto de Investigación Sanitaria Gregorio Marañón, IiSGM, Hospital General Universitario Gregorio Marañón, Madrid, Spain
[b] Centre for Biomedical Technology (CTB) Universidad Politécnica de Madrid, Laboratory of Cognitive and Computational Neuroscience, Madrid, Spain
[c] Department of Child and Adolescent Psychiatry and Psychology, Institut Clínic de Neurociencies, IDIBAPS, SGR-1119, Hospital Clínic de Barcelona, Department of Psychiatry and Psychobiology, University of Barcelona, CIBERSAM, Spain
[d] Stanley Institute International Mood Disorders Research Center, 03-RC-003, Hospital Santiago Apóstol, Vitoria, CIBERSAM, Spain
[e] Sección de Psiquiatría y Psicología, Hospital Infantil Universitario Niño Jesús, CIBERSAM, Madrid, Spain
[f] Unidad de Psiquiatría Infantil, Hospital Universitario Marqués de Valdecilla, CIBERSAM, Santander, Spain
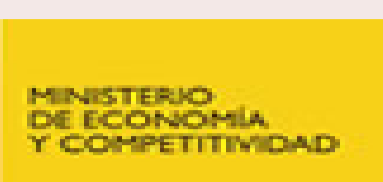
## INTRODUCTION

• Most patients diagnosed with a non-affective acute remitting psychosis (NARP), such as schizophreniform disorder (SFD) or brief reactive psychosis (BRP), are later re-diagnosed with a chronic psychosis (CP), such as schizophrenia (SCZ) or affective psychoses (AP)[1].

• However, in a small group of patients, the psychotic episode remits within six months and the diagnosis does not change[1].

• Patients with NARP have a better long-term course and outcome, with a shorter disease duration, and little or no social and occupational impairment, compared with patients with CP[2].

## HYPOTHESES

• Patients with first episodes of NARP have less disability, a better symptom profile, and functioning and insight during the first psychotic episode than those with CP.

• Better global functioning during the first psychotic episode and better premorbid adjustment predict a diagnosis of NARP at follow-up.

## METHODS

### The 'CAFEPS' study[3]
### (prospective longitudinal study)

110 patients
98 healthy controls

(9-17 years of age)

| BASELINE | 1 m | 2 m | 6 m | 12 m | 24 m |
|---|---|---|---|---|---|
| Sociodemographic and clinical data | | | Clinical data | Clinical data | Clinical data |
| Blood work (TAOS, genetics, immunology) | Blood work (TAOS, genetics, immunology) | Blood work (TAOS, genetics, immunology) | Blood work (TAOS, genetics, immunology) | Blood work (TAOS, genetics, immunology) | Blood work (TAOS, genetics, immunology) |
| Diagnosis K-SADS | | | Clinical diagnosis | Diagnosis K-SADS | Diagnosis K-SADS |
| | Cognitive assessment | | | | Cognitive assessment |

### 101 patients
### with STABLE DIAGNOSIS
*at 6, 12, or 24 month follow-up*

(15.5±1.8 years of age, 69.3% males)

| PATIENTS with NARP (N=8) | PATIENTS with CP (N=93) |
|---|---|
| SFD (N=6) BRP (N=2) | SCZ (N=50) BD (N=25) SAD (N=7) PNOS (N=11) |

*Abbreviations: SFD=schizophreniform disorder, BRP=brief reactive psychosis, SCZ=schizophrenia, BD=bipolar disorder, SAD=schizoaffective disorder, PNOS=psychotic disorder not otherwise specified

### Analytic procedures

I) Differences between diagnostic groups in variables at baseline by means of a chi square test for categorical variables and paired t-test or Mann-Whitney test for continuous variables

II) Baseline factors predicting diagnosis of NARP at two-year follow-up → Forward-step logistic regression model

## RESULTS

### I) Differences between diagnostic groups at baseline

| | NARP (N=8) | CP (N=93) | p-value |
|---|---|---|---|
| Age (y), mean (SD) | 15.13 | 15.53 | NS |
| Gender male/female (N) | 6/2 | 64/29 | NS |
| Ethnicity (Caucasian/Hispanic/Other), N | 6/0/2 | 82/6/5 | NS |
| Parental years of education, mean (SD) | 12.63 (6.39) | 10.51 (4.71) | NS |
| History of emergency C-section, N (%) | 0 (0%) | 12 (13.6%) | **0.04** |
| CGI-S, mean (SD) | 3.75 (2.66) | 5.67 (0.96) | **<0.001** |
| c-GAF score, mean (SD) | 45.00 (20.35) | 31.97 (14.09) | **0.017** |
| DUP in days, mean (SD) | 81.75 (64.07) | 62.60 (49.97) | NS |
| PANSS positive score, mean (SD) | 21.38 (6.44) | 24.46 (6.44) | NS |
| PANSS negative score, mean (SD) | 19.38 (6.26) | 20.06 (9.26) | NS |
| PANSS general score, mean (SD) | 40.88 (9.89) | 45.00 (10.74) | NS |
| PANSS total score, mean (SD) | 81.63 (18.06) | 89.53 (20.38) | NS |
| PANSS item G12 (insight), mean (SD) | 3.38 (1.85) | 4.63 (1.67) | **0.045** |
| DAS score, mean (SD) | 9.29 (5.76) | 12.26 (3.25) | **0.049** |
| SCOS total score, mean (SD) | 57.50 (5.86) | 51.55 (7.66) | **0.035** |

**No other differences (developmental or obstetric complication history, somatic disease history, family psychiatric history, symptom profile, substance abuse history, suicidal behaviour, premorbid adjustment or cognitive domains)**

### II) Baseline factors predicting diagnosis of NARP at two-year follow-up

*Logistic Regression - Method Forward (conditional)*

| | B | S.E. | Wald | df | Sig. | Exp(B) | Sig. Model | Nagelkerke R Square |
|---|---|---|---|---|---|---|---|---|
| *c-GAF* | -0.056 | 0.025 | 4.938 | 1 | 0.026 | 0.946 | 0.003 | 0.121 |
| *Constant* | 4.58 | 1.136 | 16.253 | 1 | <0.001 | 97.504 | | |

**Dependent variable**: NARP diagnosis

**Predictors**:

**Included**: c-GAF score

**Excluded**: gender, history of emergency C-section, CGI-S, PANSS negative score, PANSS item G12 (insight), SCOS total score, DAS total score

**c-GAF score at baseline predicts a diagnosis of NARP at follow-up**

## CONCLUSIONS

**1. During the first psychotic episode, children and adolescents with NARP have less disability and better functioning and insight than those with CP**

**2. Better functioning during the first psychotic episode predicts a diagnosis of NARP at follow-up**

### References

1. Castro-Fornieles, J., et al., Two-year diagnostic stability in early-onset first-episode psychosis. J Child Psychol Psychiatry, 2011. 52(10): p. 1089-98.

2. Jablensky, A., Classification of nonschizophrenic psychotic disorders: a historical perspective. Curr Psychiatry Rep, 2001. 3(4): p. 326-31.

3. Castro-Fornieles J, et al. (2007) The Child and Adolescent First-Episode Psychosis Study (Cafeps): Design and Baseline Results . Schizophr Res; 91(1-3):226-37.