

Association between hospital admissions due to affective disorders and solar activity. Analysis of 16 years Enfermedades afectivas y actividad solar.

## Seguimiento a 16 años

Ivanovic-Zuvic, Fernando

de la Vega, Rodrigo

Ivanovic-Zuvic, Nevenka

Correa, Eduardo

**Background:** Exposure to solar activity may be associated with incidence of depressive and manic disorders. **Aim:** To assess the link between solar activity and appearance of affective disorders.

**Material and Methods:** We examined 1862 clinical records of a psychiatric clinic located in Santiago, Chile. Patients with major depression and manic disorders were included in the study, only when they were admitted at the clinic for the first time. Solar activity was calculated using the Wolf number, which is given by the formula  $R = K(10g+f)$ , where "g" stands for the groups of sunspots and "f" is the total number of sunspots. We examined the correlation between annual incidence of hospital admissions and average Wolf numbers for the period 1990-2005, which corresponds to approximately one and half solar cycles of 16 years. **Results:** A total of 450 medical records corresponding to 299 patients (199 women) with depressive symptoms and 151 patients (73 women) with mania, were analyzed. There was a hi