

**RELATIONSHIPS BETWEEN SERUM TOTAL ANTIOXIDANT CAPACITY AND TYPICAL/ATYPICAL ANTIPSYCHOTIC TREATMENT IN ACUTE PARANOID SCHIZOPHRENIA**E. Diaz-Mesa<sup>1</sup>, A. Morera-Fumero<sup>2</sup>, P. Abreu-Gonzalez<sup>3</sup>, M. Henry-Benitez<sup>1</sup>, L. Fernandez-Lopez<sup>2</sup>, S. Yelmo-Cruz<sup>1</sup>, R. Gracia-Marco<sup>1</sup><sup>1</sup>Psychiatry, University Hospital of the Canary Islands, SANTA CRUZ DE TENERIFE, Spain ; <sup>2</sup>Internal Medicine Dermatology and Psychiatry, School of Medicine, University of La Laguna ; <sup>3</sup>Physiology, School of Medicine. University of La Laguna, Santa Cruz de Tenerife, Spain

**Introduction:** Schizophrenia is a chronic disease characterized by disturbances of thought, perception, volition, affectivity and cognition. An imbalance of the oxidant-antioxidant system is one of the proposed etiological factors. There are controversies regarding the effect of antipsychotics on the oxidant-antioxidant balance.

**Objective:** The aim of this research is to study the serum levels of the total antioxidant capacity (TAC) in paranoid schizophrenia patients treated with typical and/or atypical antipsychotics.

**Methods:** The sample is comprised by 38 patients admitted to the psychiatric ward of the University Hospital of the Canary Islands. All patients met DSM-IV criteria for paranoid schizophrenia. Some patients were treated only with atypical antipsychotics (N=21) while others were treated with a combination of atypical and typical antipsychotics (N=17).

**Results:** The next table shows the comparison of serum TAC levels at admission (TAC-A) and discharge (TAC-D) at 12:00 and 00:00 h.

	Antipsychotics	Mean	S.D.	P
TAC-A-12	Only Atypical	0.6633	0.14215	0.952
	Typical+Atypical	0.6604	0.14889	
TAC-A-00	Only Atypical	0.6004	0.15062	0.626
	Typical+Atypical	0.6247	0.16163	
TAC-D-12	Only Atypical	0.6070	0.16067	0.019
	Typical+Atypical	0.7172	0.07654	
TAC-D-00	Only Atypical	0.6001	0.16171	0.153
	Typical+Atypical	0.6836	0.07842	

Patients treated with a combination of typical and atypical antipsychotics present at discharge (12:00 hours) significantly higher levels of TAC than patients treated only with typical antipsychotics. The remaining comparisons did not elicit significant results.

**Conclusions:** The results point out the fact that a combination of typical and atypical antipsychotics is more helpful in reducing the deficits of the antioxidant system than treatments based only on typical antipsychotics.