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## XII Congress of the Latin American Association of Immunology - ALAI

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# Certificate

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**Delivered the Poster presentation:**

**SOLUBLE CD14 (sCD14) AND LIPOPOLYSACCHARIDE BINDING PROTEIN (LBP) IN CELIAC DISEASE**

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# Soluble CD14 (sCD14) and Lipopolysaccharide Binding Protein (LBP) in celiac disease

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**Introduction:** Celiac Disease (CD) is an autoimmune enteropathy of the small intestine caused by the consumption of gluten in genetically susceptible individuals, in which participation of the adaptive immune response, and also of the innate immune response is observed. Damage of the intestinal mucosa structure and altered permeability is observed in CD patients, which can lead to microbial translocation and systemic inflammation. Soluble CD14 (sCD14) and lipopolysaccharide binding protein (LBP) are postulated as markers of intestinal damage and bacterial translocation in inflammatory pathologies similar to CD. The aim of this study was to evaluate serum levels of sCD14 and LBP in untreated CD patients (active) or CD patients on gluten free diet (GFD) and compare levels with a control group.

**Methods and Results:** Circulating levels of sCD14 and LBP were determined in 73 adult patients with biopsy proven, 24 of these patients were untreated (active) and 49 on GFD; 55 healthy volunteers were included as controls. Patients were recruited in Instituto de Investigaciones en Ciencias de la Salud and in Fundación Paraguaya de Celíacos, Asunción, Paraguay. The study was approved by the Ethic Committee, IICS and patients provided a written informed consent to participate. Patients on GFD were nutritionally advised. Serum levels of sCD14 and LBP were evaluated by ELISA assay. Mann-Whitney U-test was used to analyze the data; a value of $p<0.05$ was considered statistically significant. We observed higher serum levels of sCD14 in untreated CD patients (median=1776 ng/mL) compared with controls (median=1573 ng/mL) and patients on GFD (median=1472 ng/mL), with $p=0.0185$ and $p=0.0033$, respectively. No significant differences were observed on LBP concentration among CD patients and healthy controls.

**Conclusion:** In this population sCD14 levels were elevated in active CD patients compared with levels of CD patients on GFD or control group. Increased levels of sCD14 can be a consequence of altered permeability and microbial translocation, therefore may have a potential use as a marker of intestinal inflammation in CD.