

October 01-02, 2018  
Frankfurt, GermanyMagdalena Chrabaszcz et al., Clin Dermatol Res J 2018, Volume 3  
DOI: 10.4172/2576-1439-C1-002

## INTEGRITY OF THE GUT BARRIER IN PLAQUE PSORIASIS

**Magdalena Chrabaszcz** and **Mariusz Sikora**

Medical University of Warsaw, Poland

**Introduction & Aim:** The collection of microbes and their genes that exist within and on the human body, collectively known as the microbiome has emerged as a principal factor in variety of disease states. Humans and microbes have established a symbiotic association over time and perturbations in this association have been linked to several immune-mediated inflammatory diseases. Therefore, enteric microbiota dysbiosis with gut barrier disruption may be important factor in the development of psoriasis. The aim of the study was to analyse the intestinal barrier integrity in psoriasis.

**Materials & Methods:** We determined concentrations of gut barrier integrity markers: claudin-3 (tight junction protein), intestinal fatty acid binding protein (I-FABP; endogenous enterocyte protein), in the blood plasma of patients with chronique plaque psoriasis (n=30) and healthy individuals (n=30). Claudin-3 and I-FABP were measured using commercially available ELISA test kits.

**Results:** Claudin-3 concentration was higher in patients with psoriasis compared with healthy control (median: 54.07 ng/ml vs. 42.36 ng/ml;  $p<0.001$ ). Patients with psoriasis had also elevated concentration of plasma I-FABP (median 708.8 pg/ml vs. 147.1 pg/ml  $p<0.05$ ). Concentrations of claudin-3 and

I-FABP significantly correlated with disease activity assessed by psoriasis area and severity index.

**Conclusion:** Our results support the hypothesis that dysfunction of intestinal barrier disturbs the homeostatic equilibrium between the microbiota and immune system that may result in chronic systemic inflammation. Many critical questions remain to be answered before we can apply new knowledge to improve therapeutic interventions in psoriasis.

### Biography

Magdalena Chrabaszcz is the Student in the First Faculty of Medicine and Public Health at the Medical University of Warsaw. She is the recipient of the Rector's Scholarship Award for best students. She is an active member of Dermatology Research Club. She is the laureate and participant of many medical conferences; and the member of International Federation of Medical Students Associations (IFMSA) and Erasmus Student Network (ESN). She participated in scientific exchanges in many countries such as Germany, Armenia, Bosnia, Herzegovina and Latvia. She is the member of the Organizing Committee of the Warsaw International Medical Congresses. Her interests in dermatology field focus on Psoriasis, Surgical Dermatology and Melanoma.

chrabaszcz.magda@gmail.com