Abstract

Introduction: Psoriasis is a chronic disease of inflammatory nature that can be considered as a systemic disorder. Metabolic syndrome is prevalent in psoriatic patients, with a negative impact on disease severity. Angiopoietin-like protein 2 (ANGPTL2) role has been investigated in several chronic inflammatory conditions, but not in psoriasis.

Aim of the work: The aim of this work was to evaluate the serum level of ANGPTL2 and its possible role in the occurrence of metabolic syndrome in psoriatic patients.

Subjects and Methods: This study enrolled 180 participants divided into two groups: psoriatic group (120 patients with chronic plaque psoriasis) and control group (60 normal subjects). Psoriasis severity was determined by psoriasis area severity index. Anthropometric measurements, lipid profile, fasting blood sugar and ANGPTL2 have been evaluated in both groups.

Results: Psoriatic patients had higher body mass index (p-value = 0.014), waist circumference (p-value <0.001), and blood pressure than control (p-value = <0.001). Fasting blood sugar and serum level of ANGPTL2 were also elevated in psoriatic patients than control (p-value <0.001, 0.025, respectively). In addition, the serum level of ANGPTL2 was significantly correlated with both disease severity (p-value <0.001) and occurrence of metabolic syndrome (p-value <0.001).

Conclusion: Serum ANGPTL2 is elevated in psoriasis patients than in normal subjects. Serum ANGPTL2 elevation may have a role in chronic inflammatory status in psoriasis and occurrence of metabolic syndrome.

Keywords: Psoriasis, Obesity, Metabolic syndrome, Angiopoietin-like protein 2.