Lnc-HULC, miR-122, and sirtulin-1 as potential diagnostic biomarkers forpsoriasis and their association with the development of metabolic syndrome during the disease course

Psoriasis is a persistent inflammatory skin disorder driven by T cells. The purpose of the study was to identify the levels of circulating *lnc-HULC*, *miR-122*, and *SIRT-1* in psoriatic patients, evaluate their possible role as diagnostic biomarkers, and link their levels with the development of metabolic syndrome during psoriasis progression.This study included 176 participants. The subjects were divided into four groups, with 44 participants in each group. All patients have undergone a complete history taking and clinical examination. Laboratory investigations included Low-density lipoprotein (LDL), High-density lipoprotein (HDL), Triglycerides (TG), Fasting blood sugar (FBS), and cholesterol plasma levels. Serum levels of *miR-122* and *lnc-HULC* were examined by qRT-PCR. Serum levels of *SIRT-1* were examined by ELISA. The serum concentrations of *lnc-HULC* and *miR-122* were significantly higher in psoriatic participants compared to controls. Psoriatic sufferers' serum concentrations of *SIRT-1* were much lower than those of healthy individuals. There was a negative association between *SIRT-1* concentration and BMI, disease duration, PASI score, LDL, and cholesterol levels. The blood levels of *lnc-HULC*, *miR-122*, and *SIRT-1* in psoriasis patients provide a promising role as diagnostic biomarkers in patients with and without metabolic syndrome.