### Abstract

**Introduction:** Albumin is the major circulating protein in blood, and can undergo increased glycation in hyperglycemia. It has become evident that protein glycation has major impact on protein activity, folding and stability.

**Method:** In the present study, three synthetic compounds were studied to investigate their antiglycative property in the HSA/Glucose system. The level of glycation and conformational alterations of glycated HSA in presence and absence of extract and synthetic compounds were assessed by congo red assay, SDS-PAGE, fluorescence and circular dichroism spectroscopy.

**Results:** Significant alteration in the secondary structure of Albumin was observed upon glycation, which was mitigated by applying synthetic compounds. Our results represent the anti-glycative property of synthetic compounds and their application for possible treatment of AGE-associated disease.

**Conclusions:** Our findings provide a strong rationale for further studies and established that mentioned compounds possess antiglycative action.

**Keywords:** Albumin, Glycation, Synthetic compounds, Antiglycative

**Presentation:** Poster