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***Lonicera japonica* protects Sprague-Dawley rat against 11 $\beta$ -HSD1 induced endothelial dysfunction in metabolic syndrome****Chirag Prajapati**

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**Objective:** To study the pharmacological evaluation of *Lonicera japonica* with reference to metabolic syndrome in order to restore 11 $\beta$ -HSD1 induced endothelial dysfunction in SD rats.

**Introduction:** Metabolic syndrome is multidisciplinary metabolic disorder in which Diabetes Mellitus, Hypertension and Obesity are presented jointly. Chlorogenic acid is a major bioactive component in the flower buds of *Lonicera japonica* having 11 $\beta$ -HSD1 property. 11 $\beta$ -HSD1 induced endothelial dysfunction has been postulated to be a major contributor to the pathogenesis of Metabolic Syndrome.

**Methods:** Present studies were aimed towards investigating the effectiveness of this LJALE extract against STZ-HFD induced diabetes and associated complications, fructose induced hypertension and HFD induced obesity respectively using SD rats. Parameters like ex vivo 11 $\beta$ -HSD 1 inhibition assay, vascular reactivity study, Nitric Oxide and Peroxynitrite have been measured.

**Results:** Chlorogenic acid isolated from LJALE could dose dependently inhibit the 11 $\beta$ -HSD1 activity. LJALE attenuate the 11 $\beta$ -HSD1 induced endothelium dysfunction in rats. LJALE treated obese animal reflect significant increased Nitric oxide and decreased Peroxynitrite.

**Conclusion:** From all above statements, it has been concluded that *Lonicera japonica* protects SD rats against 11 $\beta$ -HSD1 induced endothelium dysfunction in Metabolic Syndrome.

**Biography**

Chirag Prajapati has completed his PhD (Pharmacology) in May 2016. He has presented his MPharm research paper in USA in October 2013. He has total 5 years of experience in Academic & Research. He is presently working as a Hospital & Clinical Pharmacist in Government Hospital.

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