

## Original Paper

# Effect of green tea (*Camellia sineisis L*) extract on blood glucose and body weight in male induced diabetic Rats

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## Abstract

**Background and Objective:** Nowadays many diabetic patients interested in using medicinal herbs to relieve the symptoms of their disease in spite of the availability of synthetic drugs, one of such herbal medicine is green tea, studies about effects of this plant on blood glucose, weight of diabetes is contradict and suitable dosage is not mentioned, thus this study was done to determine the effect of green tea extract on blood glucose and body weight in male induced diabetic Rats.

**Materials and Methods:** In this experimental study 40 wistar male Rats with body weight of 230±20 purchased and kept standard situation subsequently 8 of them considered as normal group and the remainder became diabetic by 50mg/kg IP by streptozotisin. After 2 weeks animals with blood glucose of 200-500 mg/dl were considered as diabetic and divided in 4 groups with 8 animals in each. Then 3 groups of them daily was feed with 50, 100 and 200 mg/kg of extract by feeding tube for 6 weeks, diabetic control group and non-diabetic group also was feed with DMSO10% as well. BS and body weight were assessed at 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup> week after daily feeding by different doses of green tea extract, and at last results were analyzed by using student t-test and one way ANOVA.

**Results:** The mean of blood glucose of diabetic control group were significantly higher than non-diabetic group and blood glucose of diabetic groups that was feed with 50, 100 and 200mg/kg of extract was significantly lower than diabetic control group. Body weight of 3 treatment groups were not significantly reduced.

**Conclusion:** This study showed that green tea extract has an antidiabetic effect and suitable dosage of this extract was 100mg/kg.

**Keywords:** Green tea, Diabetes, Body weight, Rat

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Received 22 Oct 2008

Revised 1 Feb 2009

Accepted 2 Feb 2009