Thesis Title   Effect of *Syzygium cumini* (L.) Skeels Seed Extract on Lowering Blood Glucose Level in Thai People with Impaired Fasting Glucose

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ABSTRACT

Since the global number of diabetic patients is increased continuously, it is very important to look for ways to reduce and control blood sugar levels in order to delay full blown diabetic status in the future. Until now, several herbal extracts have been found to have an effect on reducing blood sugar, such as *Syzygium cumini* (L.) Skeels seed extract. It is possible that *Syzygium cumini* (L.) Skeels seed extract could decrease fasting blood glucose (FBG) in pre-diabetic patients. In this study, 38 subjects who have impaired fasting glucose (100-125 mg/dl) were randomly divided into 2 groups. *Syzygium cumini* (L.) Skeels seed extract and placebo were given to subjects in group 1 and group 2 respectively. The subjects' levels of FBG were compared between baseline and week 4, 8 and 12 after treatment. Levels of HbA1c were compared between baseline and week 12 after treatment. The levels of FBG in group 1 with *Syzygium cumini* (L.) Skeels seed extract treatments were significantly reduced from baseline at week 4 and week 12 ($p = 0.017$ and $p = 0.040$, respectively). Furthermore, the levels of HbA1c were significantly reduced from baseline at week 12 ($p = 0.030$). However, Group 2 subject who received placebo did not show significant difference of FBG and HbA1c levels between baseline and after treatment ($p > 0.05$). The levels of FBG and HbA1c were not different between drug and placebo groups. ($p > 0.05$).

These results suggest that *Syzygium cumini* (L.) Skeels seed extract treatment in subjects with impaired fasting glucose could reduce FBG and HbA1c within 12 weeks

Keywords: *Syzygium Cumini* (L.) Skeels Seed Extract/Impaired Fasting Glucose/Fasting Blood Glucose (FBG)/Glycated Hemoglobin (HbA1c)