



## ***FACTORS AFFECTING BLOOD PARAMETERS OF ADULT DENGUE PATIENTS INCLUDING INTAKE OF PAPAYA LEAF EXTRACT***

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Dengue is the most important mosquito borne viral infections found in Sri Lanka. Systematic IV fluid therapy is the recommended treatment according to guidelines released by the Ministry of Health. Thrombocytopenia is an important feature which aids in the initial diagnosis of dengue. A study to describe the effectiveness of papaya leaf extract, patient and health care based factors on platelet counts of adult dengue patients was attempted here.

An interviewer administered questionnaire was filled for each of the 200, serologically/clinically diagnosed dengue patients (both dengue and dengue haemorrhagic fever) at Colombo South Teaching Hospital of which 52 had ingested papaya leaf extract. The 52 patients had taken a minimum volume of 10 mL (single dose) of concentrated papaya leaf extract of which the number of doses varied between 1 and 9. The platelet count on day 3 of admission was taken into consideration. Participants were selected from the study setting entirely on voluntary basis after obtaining written informed witnessed consent. The variables were recorded and analyzed on SPSS software using Chi square test, Independent-Samples T test, Paired-Samples T test where applicable.

The findings of this study showed a significant ( $p=0.005$ ) association with platelet count on day 3 and intake of papaya leaf extract. When papaya leaf extract was ingested, the mean platelet count on day 3 was 24210 higher than when it was not taken. The platelet count on day 3 showed a significant ( $p=0.005$ ) association with the number of doses of papaya leaf extract (higher platelet counts were seen when increased papaya leaf extraction doses were given). Association between sex and platelet count was significant ( $p=0.019$ ) in the group which had taken papaya leaf extract where the females had a higher platelet count. This association was not observed in the group which had not taken papaya leaf extract. The patients age, past episodes of dengue, smoking habits, alcohol intake, type of meal, presence of chronic illnesses and usage of ayurvedic home medications prior to admission were not significantly associated with the platelet count irrespective of whether papaya leaf extract was taken or not. The study shows that papaya leaf extract causes a significant increase in the platelet count. Due to time constraints, the cases encountered was inadequate to analyze the effect of papaya leaf extract extensively by dividing it as dengue fever and dengue haemorrhagic fever for which further research is recommended.

**Keywords:** *dengue, platelet count, papaya leaf extraction*