**In vitro evaluation of the effect of ethanolic extract of** ***Terminalia belerica* roxb fruit on human coagulation indices**

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**‌ Statement of Problem:** *Terminalia belerica* roxb is the fruit of a tree from Combretaceae family, which is called Bahera in Indian, its leaves are wider than mango leaves and its fruit is slightly long, ovoid and its head is narrow and its skin is dusty yellow and thinner than the skin of *Terminalia chebula* retz. This tree grows in most of the humid forests of India and its nature is a bit cold and dry. Laboratory studies have shown that *Terminalia belerica* roxb is also effective in treating nosebleeds.

**Research Purpose:** This study was designed and implemented with the aim of measuring the effect of the ethanolic extract of the fruit of this plant on human coagulation parameters in a laboratory environment.

**Research Method:** Dry fruits of *Terminalia belerica* roxb were ground in Porcelain Mortar, fruit powder was extracted in 80% ethanol for 48 hours. The alcohol of the extract was evaporated with the help of a rotary evaporator at a temperature of 50 degrees Celsius and the remaining water was removed in the oven at a temperature of 40 degrees Celsius. The obtained dry plant extract was prepared with different concentrations in Chlorine buffer and its effect on the coagulation indices of prothrombin time (PT), Activated Partial Thromboplastin Time (APTT) and Clotting Time (CT) was investigated and the results were analyzed by t-test.

**Results and Conclusion:** The results of this study showed that the ethanolic extract of *Terminalia belerica* roxb decreased Activated Partial Thromboplastin Time (APTT) and prothrombin time (PT), and no significant effect was observed for Clotting Time (CT) using the initial (undiluted) concentration of the extract solution. The findings of this study indicate the coagulation effect of the ethanolic extract of *Terminalia belerica* roxb. However, in order to carry out additional research, it seems necessary to study more on animal and human models.

**Keywords:** *Terminalia belerica* roxb, prothrombin time, activated partial thromboplastin time, clotting time.