**In vitro evaluation of the effect of ethanolic extract of *Terminalia chebula* retz fruit on human coagulation indices**

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**‌ Statement of Problem:** *Terminalia chebula* retz belongs to the Combertaceae family, which grows natively in India and Asia and is traditionally used to treat various diseases. In addition, it is an evergreen tree with a height of 20 meters, whose leaves are egg-shaped and its flowers are small and white in spike inflorescence. Its fruit is egg-long, yellow-brown in color. This plant is native to India and Pakistan and is imported to Iran. Laboratory studies have shown that this plant is effective in treating nosebleeds and hemorrhoids.

**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 chebula* retz 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 this plant increased the Activated Partial Thromboplastin Time (APTT) and prothrombin time (PT) and significantly decreased the Clotting Time (CT) using the initial (undiluted) concentration. The findings of this study indicate the coagulation effect of the ethanolic extract of *Terminalia chebula* retz. However, in order to carry out additional research, it seems necessary to study more on animal and human models.

**Keywords:** *Terminalia chebula* retz, prothrombin time, activated partial thromboplastin time, clotting time.