ANTICOAGULANT AND ANTIPLATELET EFFECTS OF *Stryphnodendron adstringens* PLANT EXTRACTS

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**Introduction and objectives:** Vascular disorders, in which platelet aggregation and blood clotting are involved, represent one of the main causes of disability and death over the world. The current drugs to treat these disorders have poor efficacy and may produce side effects. Given this, there is the need to search for new molecules to counteract pathologies related to hemostasis. Plant extracts are known for their diverse biotechnological potential and pharmacological properties, such as antiviral, antifungal, antivenom, anticoagulant and anticancer. In this work, we evaluated the effect of the crude extract and fractions of the plant *Stryphnodendron adstringens* upon hemostasis. **Material and methods:** The tested extracts have different polarities, thus influencing its chemical profile and inhibitory activity. This species is distributed on the Brazilian cerrado and already has some pharmacological properties described, such as antiseptic, wound healing, antifungal, and astringent activities. Coagulation was monitored on a digital Coagulometer (Amelung, model KC4A micro) using different methodologies: Plasma Recalcification Time, Prothrombin Time (PT), Activated Partial Thromboplastin Time (APTT) and Fibrin Clot. Platelet aggregation was monitored on a digital Aggregometer (Chrono-log Corporation, model 490 2D), using platelet-rich-plasma (PRP) and the aggregation was triggered by adding collagen. **Results and conclusions:** The extract and fractions did not induce platelet aggregation or plasma clotting. On the other hand, the extracts and fractions inhibited coagulation through all the methods employed, delaying the clotting time around three-fold. Moreover, the crude extract of *S. adstringens* inhibited (20%) the collagen-induced platelet aggregation. These results show that the extracts of *S. adstringens* have molecules with anticoagulant and antiplatelet properties, and could be used to develop new drugs to be employed in the treatment of vascular disorders. Also, this work highlights the importance of bioprospecting studies on plants.

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