

EFFECTS OF *LONOMIA OBLIQUA* CATERPILLAR VENOM ON BLOOD PLATELETS

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Accidental contact with the *Lonomia obliqua* (Lepdoptera, Saturniidae) caterpillars causes a severe hemorrhagic syndrome. The clinical manifestations include urticant dermatitis, hematuria, renal complications and blood incoagulability. Several toxins with pro- and anti-coagulant activities are involved in this clinical profile. However, the platelet function on envenomation process is poorly understood. Considering that the platelets play a central role in hemostasis, we investigate the effects of *Lonomia obliqua* venomous secretion on platelets *in vitro*. Human blood was collected and platelets washed by gel filtration. Influence of the bristle extract on platelet function was monitored in whole blood aggregometer and platelet morphological alterations were verified by scanning electron microscopy (SEM). Bristle extract was able to directly induce aggregation of human platelets in a dose-dependent manner. Aggregation was observed six minutes after venom addition. The aggregation profile was different from classic agonists such as ADP, collagen and thrombin, suggesting that the venom have another mechanism of platelet aggregation induction. Results obtained from SEM confirmed that bristle extract induce shape change, activation and platelet aggregation. Experiments to investigate the interaction of platelet receptors with *Lonomia obliqua* venom components are under way.

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