INTERACTIONS BETWEEN HUMAN PLATELETS AND EOSINOPHILS ARE MEDIATED BY SELECTIN-P

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Mechanisms and biochemical consequences of platelet-neutrophil interactions are well known. In contrast, platelet-eosinophil interactions remain largely unexplored. The aim of this study was to assess whether platelets adhere to eosinophils, and to analyze whether selectin-P would mediate that phenomenon. Eosinophils and platelets were obtained from peripheral blood of healthy volunteers. Eosinophils were isolated using magnetic cell separation method. Platelets were isolated and washed. A number of “rosettes” (an eosinophil with more than 5 adherent platelets) per 100 eosinophils was examined in the eosinophil-platelet suspension. Addition of thrombin stimulated formation of “rosettes”. Monoclonal antibodies against selectin-P almost completely prevented thrombin-stimulated formation of “rosettes”.

In summary, intercellular interaction between platelets and eosinophils are mediated by selectin-P. This phenomenon may be of importance in asthma and other atopic diseases.

Key words: platelets, eosinophils, selectin-P, rosettes

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