

Actualitati privind interrelatia trombocit- autoimunitate

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ABSTRACT: Trombocitele sunt fragmente mici de celule, aflate in numar mare in torentul sangvin, cu un rol crucial in hemostaza prin procesele de adeziune si agregare la locul injuriei vasculare. De asemenea, studii recente au demonstrat existenta de molecule si citokine proinflamatorii la nivelul trombocitului, ce confera acestuia functii importante imunomodulatorii (maturatia la nivelul centrului germinal, suportul migrator al leucocitelor, comutarea claselor de imunoglobuline).

In ultimii ani, studiile genetice si farmacologice au identificat numeroase legaturi la nivel molecular intre trombocit si raspunsul inflamator. Prezenta receptorilor Toll-like exprimati la nivelul membranei celulare sugereaza existenta unei legaturi intre imunitatea innascuta si tromboza. De asemenea, trombocitele par a fi implicate in maturatia vaselor limfatice prin contact direct cu celulele endoteliale, via receptorii lectin-like

Pe langa rolul activ in modularea imunitatii, trombocitele reprezinta tinta multipleror afectiuni mediate imun, cum ar fi: trombocitopenia autoimuna, trombocitopenia asociata infectiilor sau trombocitopenia alloimuna (fetala, neonatala).

Plachetele par a juca un rol semnificativ in raspunsul imun, atat in conditii fiziologice cat si patologice, de la stimularea inflamatiei la rezolutia raspunsului inflamator.

Astfel, intelegand multiplele roluri pe care le joaca trombocitul in modularea raspunsului imun, noi terapii tintite pot fi dezvoltate pentru pacientii cu boli autoimune cum ar fi Scleroza Multipla, Poliartrita Reumatoida sau Boala Crohn.

Update on crosslink between platelets and immune response

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ABSTRACT: Platelets are small anucleate cell fragments, found in large numbers circulating in the blood. Platelets play a critical role in hemostasis with adhesion and aggregation at the vascular injury site being key events. In addition, recent studies demonstrate that platelets contain multiple proinflammatory molecules and cytokines, thus having important functions in modulating the immune response (germinal center maturation, leukocyte trafficking support, immunoglobulin class switch).

In the past few years, genetic and pharmacological studies identified various molecular links between platelets and inflammation. Several Toll-like receptors are expressed on the surface of platelets, making them a possible link between innate immunity and thrombosis. Also, platelets are thought to be involved in lymphatic vessel development via lectin-like receptors in direct contact with endothelial cells.

Besides their active contribution to the immune system, platelets represent the target of multiple immune-mediated diseases such as autoimmune thrombocytopenia, infection-associated thrombocytopenia, or alloimmune thrombocytopenia (fetal, neonatal).

This suggests that platelets may play an active role in innate and adaptive immunity under both physiological and pathological conditions, from stimulating inflammation to modulating its resolution. Understanding the multiple roles the platelet plays in modulating the immune response, new therapeutic pathways could be established for patients with autoimmune disorders such as multiple sclerosis, rheumatoid arthritis or Crohn's disease.