

Partial blood clot formation at the vessel wall leakage point

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The modelling of the foundation for blood clot formation will be considered. In this process a blood vessel wall injury triggers a hemostatic response to block blood leakage. This results in platelets aggregating at the vessel wall leakage point to form a plug. Simultaneously biochemical reactions are initiated. Such dynamics will be modelled in order to understand the primary and secondary hemostatic response. This will be further analysis of the work in F. Storti, T.H.S. van Kempen and F.N. van de Vosse (2014)(A continuum model for platelet plug formation and growth). The quantitative results will be used to predict the development of a blood clot to complement qualitative hemostatic models.

References

- [1] F. Storti, T.H.S. van Kempen and F.N. van de Vosse, A continuum model for platelet plug formation and growth, *Int. J. Numer. Meth. Biomed. Engng.* 2014: 30: 634 - 658.