

Quantification and evaluation of the anticoagulant activities of protein S in plasma

Citation for published version (APA):

Alshaikh, N. A. (2018). *Quantification and evaluation of the anticoagulant activities of protein S in plasma*. ProefschriftMaken Maastricht. <https://doi.org/10.26481/dis.20181128na>

Document status and date:

Published: 01/01/2018

DOI:

[10.26481/dis.20181128na](https://doi.org/10.26481/dis.20181128na)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

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Propositions belonging to the thesis entitled

Quantification and evaluation of the anticoagulant activities of protein S in plasma

1. Calibrated automated thrombography can be used to develop functional assays for protein S quantification in plasma. (*this thesis*)
2. The main advantage of the thrombin generation-based APC cofactor activity assay for protein S is its insensitivity to the presence of FV Leiden in plasma. (*this thesis*)
3. Since free and C4BP-bound protein S have different TFPI- and APC cofactor activities, antigen assays for free and total protein S do not reliably reflect the anticoagulant activity of protein S in plasma. (*this thesis*)
4. The thrombin-cleaved form of protein S is inactive as APC cofactor but fully active as TFPI cofactor. (*this thesis*)
5. Protein S and TFPI synergistically influence the regulation of thrombin generation by APC both at low and high coagulation stimuli. (*this thesis*)
6. Because protein S functional assays can detect all three types of protein S deficiency, a reliable functional assay can be used as an initial test for the diagnosis of protein S deficiency. (*Elizabeth M et al, 2005*)
7. The protein S-C4BP complex has an active role in the regulation of thrombin formation as APC cofactor. (*Maurissen et al, 2008*)
8. Since both thrombin-cleaved and C4BP-bound protein S express anticoagulant activity, cleavage of protein S and levels of C4BP may be considered regulators of protein S activity.
9. The association between protein S deficiency and decreased TFPI levels in plasma substantially increases (or may substantially increase) the risk of venous thrombosis in protein S-deficient patients. (*Castoldi et al, 2010*)
10. Faith is knowledge within the heart, beyond the reach of proof. (*Gibran Khalil Gibran*)