



Universiteit
Leiden
The Netherlands

Coronary heart disease on coronary computed tomography angiography: in search of the vulnerable patient

Rosendael, S.E. van

Citation

Rosendael, S. E. van. (2023, September 7). *Coronary heart disease on coronary computed tomography angiography: in search of the vulnerable patient*.

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from:

Note: To cite this publication please use the final published version (if applicable).

Coronary Heart Disease on Coronary Computed Tomography Angiography

In search of the vulnerable patient

Sophie E. van Rosendaal

Coronary Heart Disease on Coronary Computed Tomography Angiography
In search of the vulnerable patient

ISBN: 978-94-6483-245-7

Copyright 2023 © Sophie van Rosendael

The Netherlands. All rights reserved. No parts of this thesis may be reproduced, stored in a retrieval system or transmitted in any form or by any means without permission of the author.

Additional financial support by Medis Medical Imaging, Guerbet, Leiden Universiteits Bibliotheek, Hart Onderzoek Nederland, Canon and Chipsoft is gratefully acknowledged.

Provided by thesis specialist Ridderprint, ridderprint.nl

Printing: Ridderprint

Layout and design: Anna Bleeker, persoonlijkproefschrift.nl

Illustratie voorkant: Sebastiaan Klink

**Coronary Heart Disease on Coronary Computed
Tomography Angiography**

In search of the vulnerable patient

Proefschrift

ter verkrijging van

de graad van doctor aan de Universiteit Leiden,

op gezag van rector magnificus prof.dr.ir. H. Bijl,

volgens besluit van het college voor promoties

te verdedigen op donderdag 7 september 2023

klokke 11.15 uur

door

Sophie Elisabeth van Rosendael

geboren te Rotterdam

in 1996

Promotores:

Prof. dr. J.J. Bax
Prof. dr. J.W. Jukema

Leden promotiecommissie:

Prof. dr. D.A. Pijnappels
Prof. dr. J. Knuuti, Heart Center, Turku University Hospital, Turku, Finland
Prof. dr. A. Saraste, Heart Center, Turku University Hospital, Turku, Finland
Dr. N. Ajmone Marsan
Dr. P.R.M. van Dijkman
Dr. I. Danad, Universitair Medisch Centrum Utrecht

TABLE OF CONTENTS

Chapter 1	General introduction and outline of the thesis	8
Chapter 2	Vessel and sex differences in pericoronary adipose tissue attenuation obtained with coronary CT in individuals without coronary atherosclerosis. <small>van Rosendael SE, Kuneman JH, van den Hoogen IJ, Kitslaar PH, van Rosendael AR, van der Bijl P, Reiber JHC, Ajmone Marsan N, Jukema JW, Knuuti J, Bax JJ. Int J Cardiovasc Imaging. 2022 Dec;38(12):2781-2789.</small>	16
Chapter 3	Clinical and Coronary Plaque Predictors of Atherosclerotic Non-response to Statin Therapy. <small>van Rosendael SE, van den Hoogen IJ, Lin FY, Andreini D, Al-Mallah MH, Budoff MJ, Cademartiri F, Chinnaiyan K, Choi JH, Conte E, Marques H, de Araújo Gonçalves P, Gottlieb I, Hadamitzky M, Leipsic JA, Maffei E, Pontone G, Raff GL, Shin S, Kim YJ, Lee BK, Chun EJ, Sung JM, Lee SE, Virmani R, Samady H, Stone PH, Min JK, Narula J, Shaw LJ, Chang HJ, van Rosendael AR, Bax JJ. JACC Cardiovasc Imaging. 2023 Apr;16(4):495-504.</small>	32
Chapter 4	Sex and age-specific interactions of coronary atherosclerotic plaque onset and prognosis from coronary computed tomography. <small>van Rosendael SE, Bax AM, Lin FY, Achenbach S, Andreini D, Budoff MJ, Cademartiri F, Callister TQ, Chinnaiyan K, Chow BJW, Cury RC, DeLago AJ, Feuchtner G, Hadamitzky M, Hausleiter J, Kaufmann PA, Kim YJ, Leipsic JA, Maffei E, Marques H, de Araújo Gonçalves P, Pontone G, Raff GL, Rubinshtein R, Villines TC, Chang HJ, Berman DS, Min JK, Bax JJ, Shaw LJ, van Rosendael AR. Eur Heart J Cardiovasc Imaging. 2023 May 11;jead094.</small>	52
Chapter 5	Coronary Volume to Left Ventricular Mass Ratio in Patients With Hypertension. <small>van Rosendael SE, van Rosendael AR, Kuneman JH, Patel MR, Norgaard BL, Fairbairn TA, Nieman K, Akasaka T, Berman DS, Kowcek LMH, Pontone G, Kawasaki T, Sand NPR, Jensen JM, Amano T, Poon M, Øvrechus KA, Sonck J, Rabbat MG, Rogers C, Matsuo H, Leipsic JA, Marsan NA, Jukema JW, Bax JJ, Saraste A, Knuuti J. Am J Cardiol. 2023 May 15:S0002-9149(23)00241-2.</small>	74
Chapter 6	Summary, Conclusions and future perspectives	94
	Nederlandse samenvatting	100
	List of publications	103
	Dankwoord	104
	Curriculum Vitae	105