



Universiteit  
Leiden  
The Netherlands

## **ANCA-associated vasculitis: On clinical management and renal outcome**

Goceroglu, A.

### **Citation**

Goceroglu, A. (2020, September 16). *ANCA-associated vasculitis: On clinical management and renal outcome*. Retrieved from <https://hdl.handle.net/1887/136756>

Version: Publisher's Version

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

Downloaded from: <https://hdl.handle.net/1887/136756>

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

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/136756> holds various files of this Leiden University dissertation.

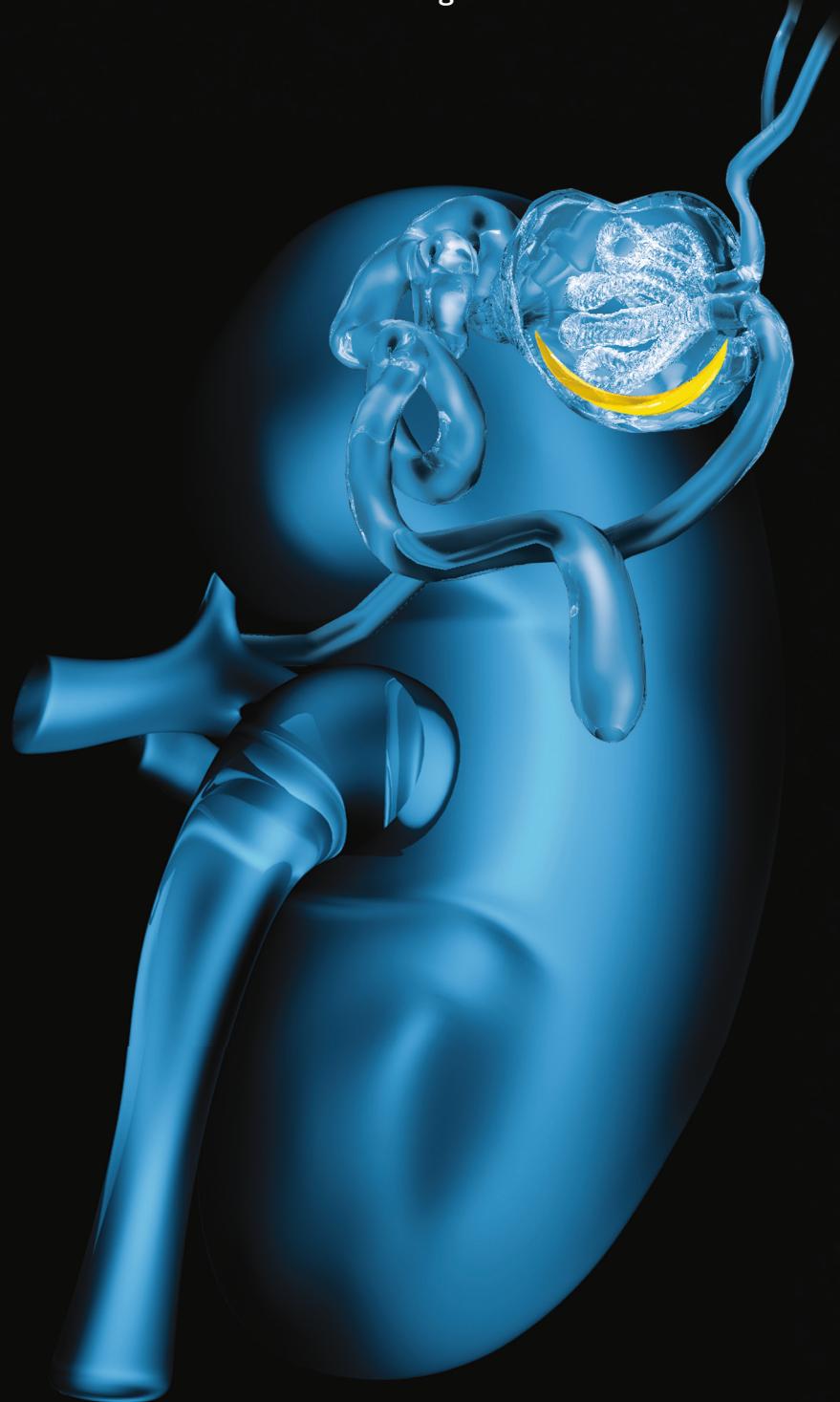
**Author:** Goceroglu, A.

**Title:** ANCA-associated vasculitis: On clinical management and renal outcome

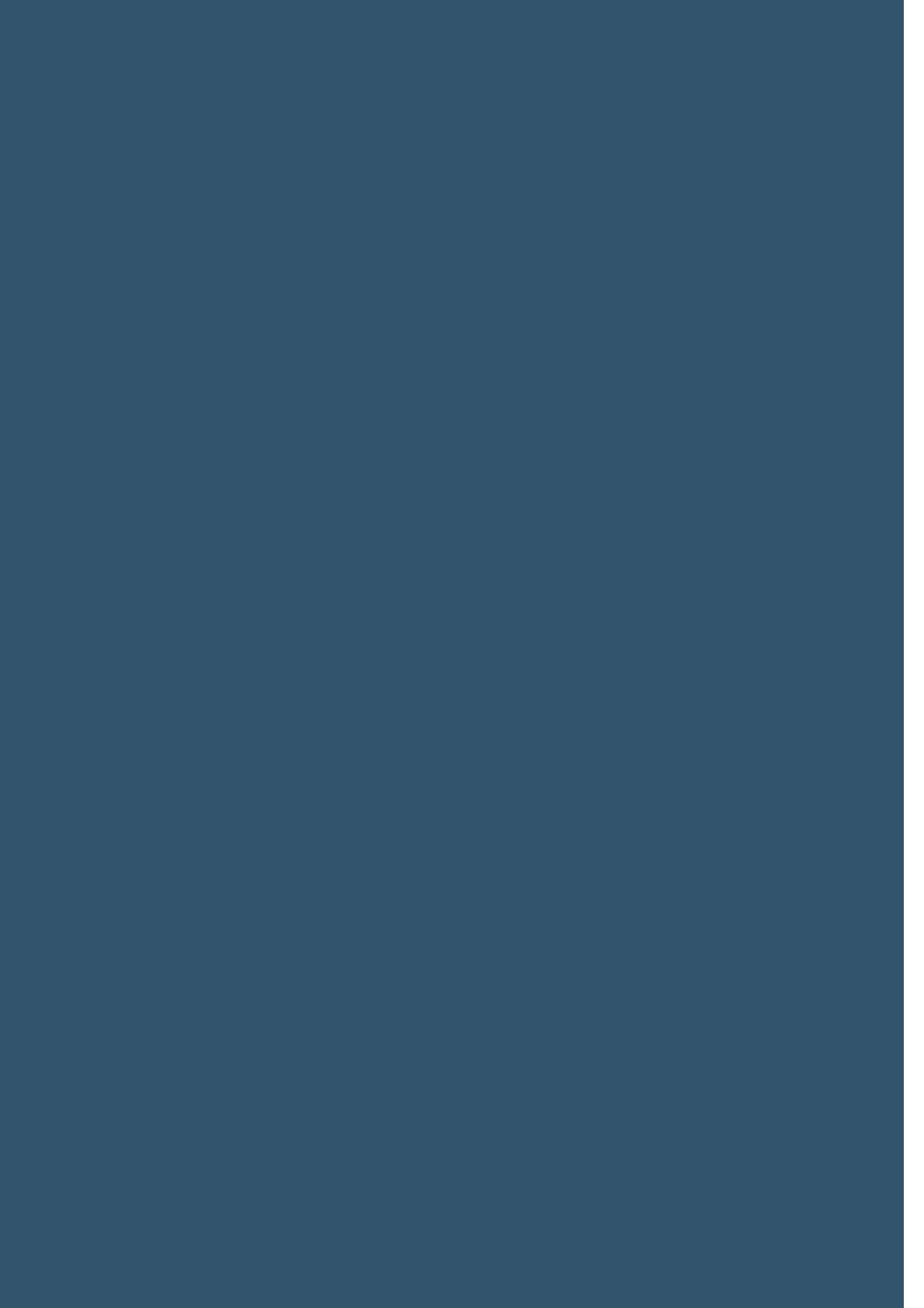
**Issue Date:** 2020-09-16

# **ANCA-associated vasculitis**

On clinical management and renal outcome



**Arda Göçeroğlu**



## **ANCA-associated vasculitis**

*On clinical management and renal outcome*

Arda Göçeroğlu

**Colophon:**

Title: ANCA-associated vasculitis: *On clinical management and renal outcome*

Author: Arda Göçeroğlu

Ph.D. thesis, University of Leiden, Leiden, the Netherlands

ISBN: 978-94-6375-860-4

The publication of this thesis was financially supported by: Department of Pathology (Leiden University Medical Center, Leiden, the Netherlands), Vasculitis Stichting, ReumaNederland, ChipSoft.

Design cover and lay-out: Rutger van Aken, [persoonlijkproefschrift.nl](http://persoonlijkproefschrift.nl)

Illustrations: Yolande Lijten, Yo Picto

Printing: Ridderprint B.V., [www.ridderprint.nl](http://www.ridderprint.nl)

Copyright © 2020 Arda Göçeroğlu, Leiden, the Netherlands.

No part of this thesis may be reproduced, stored, or transmitted in any form or by any means, without prior written permission of the authors and corresponding journal.

**ANCA-associated vasculitis**

*On clinical management and renal outcome*

**Proefschrift**

ter verkrijging van  
de graad van Doctor aan de Universiteit Leiden,  
op gezag van Rector Magnificus prof. mr. C.J.J.M. Stolker,  
volgens besluit van het College voor Promoties  
te verdedigen op woensdag 16 september 2020  
klokke 10.00 uur

door

**Arda Göçeroğlu**

geboren te Lindenfels, Duitsland  
in 1989

**Promotor:** Prof. dr. J.A. Bruijn

**Co-promotores:** Dr. I.M. Bajema  
Dr. A.E. Berden

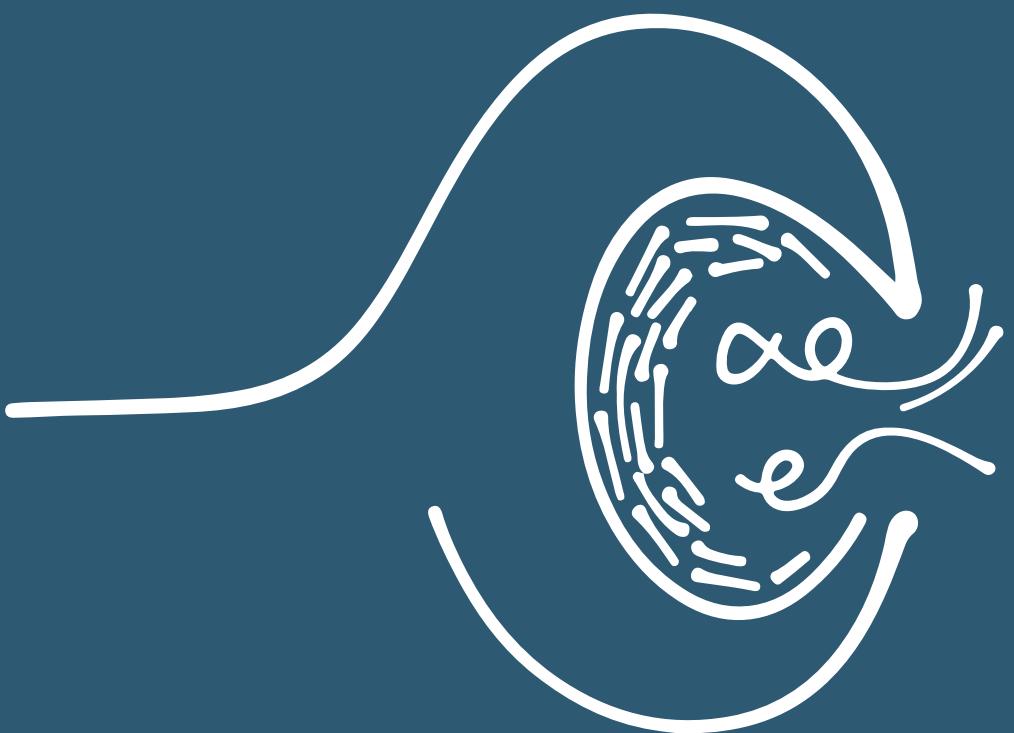
**Promotiecommissie:** Prof. dr. V.T.H.B.M. Smit  
Prof. dr. A.E. Voskuyl (Amsterdam UMC, Amsterdam,  
Nederland)  
Prof. dr. A. Bruchfeld (Linköping University and Karolinska  
Institutet, Stockholm, Zweden)

*Güzel şeylerin zamanı geçmez.*

“De tijd van mooie dingen gaat nooit voorbij”

— A Turkish dictum

Aan mijn ouders, (over)grootouders en geliefde



## TABLE OF CONTENTS

<b>Chapter 1</b>	General introduction	9
<b>Chapter 2</b>	Anti-plasminogen antibodies in ANCA-associated vasculitis: an optimized anti-plasminogen assay	43
<b>Chapter 3</b>	ANCA-associated glomerulonephritis: risk factors for renal relapse	59
<b>Chapter 4</b>	Histopathological classification of ANCA-associated glomerulonephritis: interobserver variability and clinical outcome	83
<b>Chapter 5</b>	The Dutch transplantation in vasculitis (DUTRAVAS) study: outcome of renal transplantation in ANCA-associated glomerulonephritis	105
<b>Chapter 6</b>	Diagnosis and management of ANCA-associated vasculitis	131
<b>Chapter 7</b>	Summary and general discussion	157
<b>Chapter 8</b>	Nederlandse samenvatting en discussie	175
<b>Appendices A</b>	Authors and affiliations	186
<b>B</b>	Curriculum vitae	188
<b>C</b>	Bibliography	190
<b>D</b>	Dankwoord (Acknowledgements)	192