

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/43590> holds various files of this Leiden University dissertation

Author: Machado, Pedro

Title: Health and imaging outcomes in axial spondyloarthritis

Issue Date: 2016-10-18

Health and Imaging Outcomes in Axial Spondyloarthritis

Pedro Machado

2016

ISBN: 978-94-6233-383-3

Copyright © 2016 by Pedro Machado.

All rights reserved. No part of this book may be reproduced in any form without written permission of the author or, when appropriate, of the publishers of the publications.

Pedro Machado was supported by the *Fundação para a Ciência e Tecnologia* (FCT) grant SFRH/BD/62329/2009.

Printing of the thesis was financially supported by the Dutch Arthritis Foundation and Novartis Pharmaceuticals, which are gratefully acknowledged.

Cover picture: Margarida Figueira.

Cover design and thesis layout: Midas Mentink (www.ThesisExpert.nl).

Printing: Gildeprint - Enschede (www.gildeprint.nl).

Health and Imaging Outcomes in Axial Spondyloarthritis

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 donderdag 18 oktober 2016

klokke 16:15 uur

door

Pedro Miguel Marques Cardoso Machado

geboren te Porto (Portugal)

in 1978

Promotores:

Prof. dr. D.M.F.M. van der Heijde
Prof. dr. R.B.M. Landewé
AMC, Universiteit van Amsterdam

Leden promotiecommissie:

Prof. dr. T.W.J. Huizinga
Prof.dr. A.E.R.C.H. Boonen
Maastricht Universitair Medisch Centrum
Prof.dr. W.P. Maksymowych
University of Alberta, Edmonton, Canada
Prof.dr. J.A. Pereira da Silva
University of Coimbra, Portugal
Dr. F.A. van Gaalen

*'Choose a job you love,
and you will never have to work a day in your life.'*

Confucius, 551 - 479 BC

To my parents

To my brother and sister

To Alexandra and Leonardo

TABLE OF CONTENTS

Chapter 1	General introduction	12
Chapter 2	Ankylosing Spondylitis Disease Activity Score (ASDAS): defining cut-off values for disease activity states and improvement scores <i>Ann Rheum Dis. 2011 Jan;70(1):47-53</i>	28
Chapter 3	Calculating the ankylosing spondylitis disease activity score if the conventional C-reactive protein level is below the limit of detection or if high-sensitivity C-reactive protein is used: an analysis in the DESIR cohort <i>Arthritis Rheumatol. 2015 Feb;67(2):408-13</i>	48
Chapter 4	Both structural damage and inflammation of the spine contribute to impairment of spinal mobility in patients with ankylosing spondylitis <i>Ann Rheum Dis. 2010 Aug;69(8):1465-70</i>	62
Chapter 5	A stratified model for health outcomes in ankylosing spondylitis. <i>Ann Rheum Dis. 2011 Oct;70(10):1758-64</i>	78
Chapter 6	MRI inflammation and its relation with measures of clinical disease activity and different treatment responses in patients with ankylosing spondylitis treated with a tumour necrosis factor inhibitor <i>Ann Rheum Dis. 2012 Dec;71(12):2002-5</i>	98
Chapter 7	HLA-B27 positive patients differ from HLA-B27 negative patients in clinical presentation and imaging: results from the DESIR cohort of patients with recent onset axial spondyloarthritis <i>Ann Rheum Dis. 2011 Nov;70(11):1930-6</i>	108
Chapter 8	Smokers in early axial spondyloarthritis have earlier disease onset, more disease activity, inflammation and damage, and poorer function and health-related quality of life: results from the DESIR cohort <i>Ann Rheum Dis. 2012 Jun;71(6):809-16</i>	126
Chapter 9	Ankylosing spondylitis patients with and without psoriasis do not differ in disease phenotype <i>Ann Rheum Dis. 2013 Jun;72(6):1104-7</i>	154
Chapter 10	MRI inflammation at the vertebral unit only marginally predicts new syndesmophyte formation: a multilevel analysis in patients with ankylosing spondylitis <i>Ann Rheum Dis. 2012 Mar;71(3):369-73</i>	162
Chapter 11	MRI vertebral corner inflammation followed by fat deposition is the strongest contributor to the development of new bone at the same vertebral corner: a multi-level longitudinal analysis in patients with ankylosing spondylitis <i>Ann Rheum Dis. 2016 Aug;75(8):1486-1493</i>	176
Chapter 12	Summary and conclusions	204
Chapter 13	Samenvatting en conclusies	224
	List of publications	237
	Curriculum Vitae	245
	Acknowledgements	246

