

The Active Role of Adipose Tissue in Rheumatoid Arthritis

Targeting Adipose Tissue In Rheumatoid Arthritis – TARA Study

TABLE OF CONTENTS

I THEORETICAL BACKGROUND	1
I.1 ADIPOCYTOKINES — NOVEL BIOMARKERS — INSIGHTS IN RA.....	3
I.1.1 ADIPONECTIN.....	3
I.1.2 ADIPONECTIN AND INFLAMMATION.....	4
I.1.3 LEPTIN.....	5
I.1.4 LEPTIN AND INFLAMMATION.....	5
I.1.5 RESISTIN.....	5
I.1.6 RESISTIN AND INFLAMMATION.....	5
I.2 ADIPOKYNES AND OTHER RHEUMATOLOGIC DISEASES.....	7
I.2.1 OSTEOARTHRITIS AND THE ADIPOSE TISSUE.....	7
I.2.1.1 PATHOPHYSIOLOGY.....	7
I.2.1.1.1 ADIPOSE TISSUE — AS A MECHANICAL FACTOR.....	7
I.2.1.1.2 ADIPOSE TISSUE — AS A SYSTEMIC FACTOR.....	8
I.2.1.2 EPIDEMIOLOGY.....	9
I.2.1.3 THE ADIPOSE TISSUE AND THE HIP OA — COXARTHROSIS.....	10
I.2.1.4 THE ADIPOSE TISSUE AND KNEE OA — GONARTHROSIS.....	10
I.2.1.5 ADIPOSE TISSUE AND HAND OA.....	11
I.2.2 SYSTEMIC LUPUS ERYTHEMATOSUS AND THE ADIPOSE TISSUE.....	11
I.2.2.1 PATHOPHYSIOLOGY.....	11
I.2.2.2 EPIDEMIOLOGY.....	13
I.3 ULTRASOUND.....	14
I.3.1 ULTRASOUND IN RA.....	14
I.3.2 DOPPLER SETTINGS.....	15
II PERSONAL CONTRIBUTION	17
II.1 TARGETING THE ADIPOSE TISSUE — TARA STUDY.....	18
II.1.1 AIMS.....	18
II.1.2 MATERIAL AND METHOD.....	19
II.1.2.1 DESIGN OF THE STUDY.....	19
II.1.2.2 PARAMETERS ASSESSED.....	20
II.1.2.2.1 BIOLOGICAL MARKERS/PARAMETERS.....	20
II.1.2.2.2 NON-BIOLOGICAL MARKERS/PARAMETERS.....	23
II.1.3 STATISTICAL ANALYSES.....	24
II.2 TARA STUDY 1 - THE MEASUREMENT OF VALIDITY.....	25
II.3 TARA STUDY 2 - A compared study of the variations of the mean values of the adipose tissue's markers and the ultrasound assays on the RA group patients divided in four groups according with the BMI.....	62
II.4 TARA STUDY 3 - A correlation study of the old and new presumed biomarkers and non-biological (ultrasound) assay of the disease activity in the groups of the RA patients.....	78
II.5 TARA STUDY 4 - The control (health) group study.....	82
II.6 DISCUSSIONS.....	84
II.7 CONCLUSIONS.....	87
III REFERENCES	89
IV APPENDIXES	99
IV.1 Abbreviations.....	99
IV.2 Figure list.....	101
IV.3 Tables list.....	103