Top Institute Pharma (TIP) - research UMCU-rheumatology: *Metabolic adverse events/co-morbidity in chronic rheumatoid arthritis patients*

Published: 24-06-2008
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- To systematically determine the influence of disease activity of RA on the metabolic syndrome of patients with chronic RA (disease duration > 2 years).

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Glucose metabolism disorders (incl diabetes mellitus)
Study type	Observational invasive

Summary

ID

NL-OMON32316

Source
ToetsingOnline

Brief title
Top Institute Pharma (TIP) - research UMCU-rheumatology

Condition

- Glucose metabolism disorders (incl diabetes mellitus)
- Lipid metabolism disorders
- Musculoskeletal and connective tissue deformities (incl intervertebral disc disorders)

Synonym
diabetes, rheumatism

Research involving
Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Utrecht
Source(s) of monetary or material Support: TI-Pharma

Intervention

Keyword: disease activity, glucocorticoids, insulin resistency, metabolic syndrome, rheumatoid arthritis

Outcome measures

Primary outcome

Metabolic syndrome according to the WHO-criteria (incl. insulin resistence),

e.g. insulin resistence and 2 of the following criteria: dyslipidemia,

hypertension or central obesity.

Secondary outcome

Secundary: Insuline resistence pattern measured over 2 hours with a 7-point

OGTT.

Co-variables: Other cardiovascular risk factors and disease activity of RA.

Study description

Background summary

Rheumatoid arthritis (RA) is a frequently occurring, chronic auto-immune disease characterized by the
inflammation of joints, which leads to damaged cartilage and bone, and the impaired ability to move. In
addition to long-term medication, like methotrexate, glucocorticoids (GCs) are often used for treatment.

Co-morbidities which are part of the metabolic syndrome, e.g. insulin

resistance, hypertension, and dyslipidemia, can play a big role in RA-patients. Active disease / inflammation appears to play an important part in these co-morbidities: RA-patients have an increased chance of getting an cardiovascular event, and a aggessive anti-rheumatic treatment has a postive effect on the lipid spectrum. The exact role that disease activity and disease modifying drugs play in the pathophysiology of the metabolic syndrome, nevertheles hasn't been identified yet.

This research is part of the TI-Pharma project 'glucocorticoids'; This project studies the influence of GCs and inflammation on insulin resistence and metabolic syndrome. The pharmaceutical concern Organon evaluates a new compound which selectively inhibits inflammation through GC-receptors, without causing the metabolic/endocrine adverse events which are feared greatly, e.g. insulin resistence, hypertension, and dyslipidemia. To determine the added value of these new compounds with respect to these adverse events compared to conventional GCs, these adverse events should first be examined adequately. The department of endocrinology of the VUMC studies the influence of low-to-medium dose GCs on the metabolic syndrome in healthy volunteers. With a 7-point glucose tolerence test the beta-cel function is studied by looking at the glucose, insuline/C-peptide ratio at 7 time-points over 2 hours. The department of rheumatology of the VUMC studies metabolic syndrome using similar measurements in early RA patients. Our department, rheumatology UMCU, also evaluates metabolic syndrome and insulin resistence in the same manner, but in RA-patients with a long disease duration (>2 year diagnosis RA). Because GCs play a prominent role in the treatment of RA, the GC-load is studied as being part of disease activity.

The relevance of the entire TI-Pharma project is the above mentioned positioning of GCs in the treatment of RA, which is happening in the context of new -under development- GC-like compounds, like the one in our TI Pharma project. When metabolic adverse events of new GC-like compounds are studied, then this should be positioned against the adverse events of the conventional GCs. In our part of the project we therefore not only thoroughly study metabolic syndrome in patients with chronic inflammation, but we also perform the basic study against which future anti-inflammatory / anti-rheumatic medications can mirror.

1. Hench P. Effects of cortisone in the rheumatic diseases. Lancet. 1950;2(17):483-4.
2. Kirwan JR, Bijlsma JWJ, Boers M, Shea BJ. Effects of glucocorticoids on radiological progression in
rheumatoid arthritis. Cochrane Database SystRev. 2007(1).
3. Da Silva JA, Jacobs JW, Kirwan JR, Boers M, Saag KG, Ines LB, et al. Safety of low dose glucocorticoid
treatment in rheumatoid arthritis: published evidence and prospective trial data. Annals of the Rheumatic

Diseases. 2006;65(3):285-93.
4. Hoes JN, Jacobs JWG, Boers M, Boumpas DT, Buttgereit F, Caeyers N, et al. EULAR evidence based
recommendations on the management of systemic glucocorticoid therapy in rheumatic diseases. Report of
a task force of the EULAR Standing Committee for International Clinical Studies Including Therapeutics
(ESCISIT). Ann Rheum Dis (in press). 2007.
5. Dessein PH, Tobias M, Veller MG. Metabolic syndrome and subclinical atherosclerosis in rheumatoid
arthritis. JRheumatol. 2006;33(12):2425-32.
6. Pamuk ON, Unlu E, Cakir N. Role of insulin resistance in increased frequency of atherosclerosis detected
by carotid ultrasonography in rheumatoid arthritis. JRheumatol. 2006;33(12):2447-52.
7. Boers M, Nurmohamed MT, Doelman CJ, Lard LR, Verhoeven AC, Voskuyl AE, et al. Influence of
glucocorticoids and disease activity on total and high density lipoprotein cholesterol in patients with
rheumatoid arthritis. Annals of the Rheumatic Diseases. 2003;62(9):842-5.

Study objective

- To systematically determine the influence of disease activity of RA on the metabolic syndrome of patients with chronic RA (disease duration > 2 years).

Study design

- Studie-design: Cross-sectional.
- Monitoring:
o 1 measurement.

Study burden and risks

The risks of this study are minimal.
With regards to the laboratory tests and OGTT the risks are neglectable, and with regards to the radiation burden:
category IIb: "To justify risks in cat. IIa the benefit will probably be related to increases in
knowlegde leading to health benefit. For risks in cat. IIb the benefit will be more directly aimed at the cure
or prevention of disease."

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

Diagnosis reumatoïd arthritis with disease duration > 2 years.

Exclusion criteria

None

Study design

Design

Study phase:	4
Study type:	Observational invasive
Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Diagnostic

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	28-07-2008
Enrollment:	300
Type:	Actual

Ethics review

Approved WMO

Date:	24-06-2008
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Utrecht (Utrecht)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

ID: 20413
Source: NTR
Title:

In other registers

Register	ID
ISRCTN	ISRCTN53261020
CCMO	NL21596.041.08
OMON	NL-OMON20413