Skin resident T cells in atopic dermatitis and psoriasis - Escape from regulation?

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To determine the frequency and suppressive potential of skin resident regulatory T cells isolated from atopic dermatitis and psoriasis patients compared to healthy control subjects (the latter data will be obtained by co-workers at the Brigham and...

Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Allergic conditions
Study type	Observational invasive

Summary

ID

NL-OMON31571

Source
ToetsingOnline

Brief title
Skin resident T cells in atopic dermatitis and psoriasis

Condition

- Allergic conditions
- Epidermal and dermal conditions

Synonym
atopic dermatitis, eczema

Research involving
Human

Sponsors and support

Primary sponsor: Universitair Medisch Centrum Utrecht
Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: atopic dermatitis, psoriasis, regulatory T cells, skin

Outcome measures

Primary outcome

(a) Differences between the suppressive potential of skin resident regulatory T cells isolated from atopic dermatitis, psoriasis patients and healthy control subjects

(b) Differences between the the frequency of regulatory T cells in the skin of patients with atopic dermatitis, psoriasis and healthy control subjects.

Secondary outcome

Not applicable.

Study description

Background summary

Atopic dermatitis (AD) is a common, itchy, chronic inflammatory skin disease. T cells have been suggested to play a critical role in the pathogenesis of AD, and lesional AD skin typically shows a striking infiltration of CD4+ T cells in the dermis and epidermis.
Regulatory T cells constitute a small proportion of CD4+ T cells, but have been shown pivotal for the suppression of immune responses. Recent, preliminary data have shown increased percentages of regulatory T cells in the skin of AD patients.
We therefore hypothesize that the chronic inflammation found in the skin of atopic dermatitis patients results from impairment of function of regulatory T cells.
After AD, psoriasis is the second most common skin disease, affecting approximately 2-3% of the population worldwide. Also in psoriasis, T cells are supposed to play a pivitol in the pathogenesis of the disease and regulatory T cells have been shown in psoriasis skin lesions.

Study objective

To determine the frequency and suppressive potential of skin resident regulatory T cells isolated from atopic dermatitis and psoriasis patients compared to healthy control subjects (the latter data will be obtained by co-workers at the Brigham and Women's hospital).

Study design

Observational study

Study burden and risks

More detailed knowledge about the characteristics of skin resident regulatory T cells in AD and psoriasis will improve insights in the local inflammatory processes and may lead to the development of new therapeutic strategies. Skin biopsies are regularly taken in daily clinical practice and there are only minor risks associated with it. Although a rare complication, infection of the site of biopsy can be treated by the use of topical antibiotic ointments. The wound resulting from the biopsy may leave a hypopigmented (small) scar.

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

- adult (18-70 years of age), male or female patients diagnosed with atopic dermatitis (diagnostic criteria as described by Williams), or (guttate or plaque) psoriasis
- biopsy location (about 2x2 cm) should not be treated with topical steroids for at least 1 week

Exclusion criteria

- use of systemic immunosuppressive drugs (i.e., cyclosporin, prednisolone, methotrexate, neotigason, fumaric acid) in the 6 weeks prior to the inclusion
- exposure of biopsy location to (extraordinary) UV sunlight (i.e. UV-therapy, sunny holiday) in the 6 weeks prior to inclusion
- (secondary) skin infection

Study design

Design

Study type:	Observational invasive
Intervention model:	Other
Allocation:	Non-randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	29-05-2007

Enrollment:	48
Type:	Actual

Ethics review

Approved WMO Date:	22-05-2007
Application type:	First submission
Review commission:	METC Universitair Medisch Centrum Utrecht (Utrecht)
Approved WMO Date:	28-04-2008
Application type:	Amendment
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

No registrations found.

In other registers

Register	ID
CCMO	NL15763.041.07