Occupational allergy and asthma in bell pepper horticulture: natural course

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Ethical review	Approved WMO
Status	Recruiting
Health condition type	Respiratory disorders NEC
Study type	Observational invasive

Summary

ID

NL-OMON29765

Source
ToetsingOnline

Brief title
occupational allergy in bellpepper horticulture.

Condition

- Respiratory disorders NEC

Synonym
job-related allergy en asthma, work-related allergy and asthma

Research involving
Human

Sponsors and support

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

Intervention

Keyword: allergy, asthma, bell pepper horticulture, occupational

Outcome measures

Primary outcome

Development of sensitisation, occupational rhinitis and occupational asthma.

Secondary outcome

Change of job because of symptoms, medical consumption, (long-term) sickness absence due to airway symptoms, loss of productivity at work due to airway symptoms.

Study description

Background summary

The prevalence of occupational allergy and asthma has increased over the past few decades. Nearly 10% of all adult-onset asthma can be attributed to the work place. Workrelated symptoms are also often mentioned by workers in the bell pepper horticulture. A cross-sectional study on the prevalence of occupational allergy in bell pepper horticulture was performed in 1999 en 2000. This study demonstrated workrelated symptoms in 53.8% and sensitisation to the bell pepper plant in 35% of the workers (472). The bell pepper cultivation with a current workforce of 5000-7000 has increased during the past few years. In the current situation preliminary detection of workers at risk of developing sensitisation or disease is not yet possible. To identify employees at risk at an early stage more knowlegde is required about the natural course of occupational allergy and the risk factors. The size of work force (nowadays 5000 -7000 employees) in the bell pepper horticulture and the extraordinary high rate of reported symptoms and sensitisation to occupational allergens emphasises the importance of the project for this branch of agricultural industry. Although bell pepper employees only are subject of study, this branch of industry may serve as a model for many other kinds of horticulture characterised by pollen exposure.

Study objective

In this investigation the natural course of occupational allergy and asthma in bell pepper greenhouses is studied and the determinants of the development of

sensitization and symptoms in the cohort of 472 employees, studied in 1999 are assessed. With these data we will develop separate models to identify prognostic factors for development of sensitisation, occupational rhinitis and asthma respectively. This way, workers at risk of developing sensitisation and disease can be identified at an early stage, while preliminary detection in the current situation is not yet possible. The prediction models may tailor the treatment to the nature and severity of symptoms and prioritise the intervention according to the expected effects on daily functioning.
Also, the burden of disease will be determined in terms of medical consumption, labor force participation, work productivity. From this analysis direct and indirect costs can be calculated.

Study design

Bell pepper emplyees who participated in a cross-sectional survey in 1999 will be approached and will be asked to participate in a second survey. Subjects lost to follow up will be traced and asked to participate. Biographic data, data concerning respiratory symptoms, data on job characteristics, on medical consumption, on productivity at work and on sickness absence and rhinitis/asthma quality of life questionnaires will be gathered. Also a skin prick test with allergen extracts will be performed including bell pepper pollen, thyrophagus, botrytis, amblyseius cucumeris and common inhalant allergens.

Study burden and risks

A systemic adverse reaction after a skin prick test (an allergic reaction to the skin test) is rare, because only a minimal amount of allergen is used. Local itchiness can occur. Apart from the direct skin reaction (after 15 minutes) an itchy swelling can appear after 6 hours. This swelling will disappear in the next few days.
The duration of the visit amounts approximately one hour.

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

Partipation in the study in 1999

Exclusion criteria

No participation in the study in 1999

Study design

Design

Study type: Observational invasive

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Basic science

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	26-10-2006
Enrollment:	472
Type:	Actual

Ethics review

Approved WMO Date:	19-09-2006
Application type:	First submission
Review commission:	METC Erasmus MC, Universitair Medisch Centrum Rotterdam (Rotterdam)

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	NL11634.078.06