

Press release

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Basic information

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Department of: Clinical Medicine

Main supervisor: Hans Jürgen Hoffmann

Title of dissertation: Intralymphatic immunotherapy

Date for defence: 3/12 2020 at (time of day): 1500 Place: Auditorium A (G206-154), Aarhus University Hospital

Press release (Danish)

Ny nem og kortvarig behandling af allergi undersøgt på Allergicenter AUH, Afdeling for Lungesygdomme, Aarhus Universitetshospital.

Græs pollen allergi er en sygdom med en høj symptombyrde for det berørte individ og med stor økonomisk betydning for samfundet på grund af den høje udbredelse. Allergen-specifik immunterapi er den eneste behandlingsmulighed, der ændrer de grundlæggende sygdomsmekanismer. Desværre er de nuværende behandlingsformer dyre, komplicerede og har mange bivirkninger. Derfor er der mange patienter, der ikke gennemfører behandlingen eller slet ikke begynder. Dermed er der mange underbehandlede patienter i Danmark som i alle vestlige samfund og der er behov for bedre behandlinger.

På Allergicenter AUH, Afdeling for Lungesygdomme, Aarhus Universitetshospital, har dette ph.d.-projekt undersøgt effekten af en behandlingsform, hvor allergimedisin injiceres direkte ind i lymfeknuder (intralymfatisk immunterapi, ILIT). Denne behandling stimulerer immunsystemet meget og varigheden af behandlingen kan derfor nedsættes til 3 injektioner, der gives over to måneder. Den nuværende behandling tager 3 år og inkluderer 30-50 injektioner.

Ph.d.-projektet undersøger effekten af behandlingen sammenlignet med placebo og finder at byrden af allergisymptomer og brug af allergimedisin reduceres ved behandlingen. Effekten var størst det første år efter behandlingen, men varede ved i tre år. Disse resultater bekræfter andre studier i behandlingsmetoden og styrker ideen om at behandlingen er effektiv. Injektionerne var sikre og gav få bivirkninger. Studiet var dog lille og der er brug for større studiet for endeligt at kunne bekræfte metoden, så den kan implementeres i klinikken. Forskningsgruppen er i gang med at planlægge et stort multicenter og multinationalt forskningsprojekt der skal starte i 2021.

Injektionerne skal gives præcist ind i lymfeknuderne for at give god effekt og de er teknisk vanskelige at udføre. I ph.d. en indgår studier af betydningen af injektionernes kvalitet på effekten af behandlingen; effekten afhænger af gode injektioner, men bivirkninger gør det heldigvis ikke. Desuden undersøges det, hvordan u træne læger lærer at udføre injektionerne og effekten af et træningsprogram udviklet specifikt til behandlingen undersøges.

Ph.d. en konkluderer at behandlingen er effektiv, men afhængig af at lægerne er tilstrækkeligt uddannede i teknikken. Perspektiverne fra ph.d.-projektet er vidtrækkende, for den nye behandlingsmetode vil med stor sandsynlighed være attraktiv for mange patienter og ph.d.-projektet belyser flere af de forhindringer der har begrænset implementering i klinikken.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 3/12 2020 kl. 15.00 i Auditorium A (G206-154), Aarhus University Hospital. Palle Juul-Jensens Boulevard 99, 8200 Aarhus N. Venligst melde jer ti vedl Mette Toft (mettflas@rm.dk) med teksten SHS PhD i titlen pga COVID-19 kontrol

Titlen på projektet er "Intralymphatic immunotherapy". Yderligere oplysninger: Ph.d.-studerende Søren Helbo Skaarup, e-mail: soeska@rm.dk, tlf. 28911869.

Bedømmelsesudvalg:

Vivi Schlünssen, MD, Professor, Department of Occupational Medicine, Aarhus University Hospital, Department of Public Health, Aarhus University and Danish Research Center for the Working Environment, Copenhagen.

Thomas Kündig, Professor, Dr.med, Dermatological Clinic, University Hospital Zurich, Switzerland.
Lone Winter, MD, Dr.med. Clinic for Allergy, Gentofte Hospital, Denmark.

Press release (English)

New easy and effective treatment of allergy investigated at the Allergy Center AUH,
Department of Respiratory Diseases and Allergy at Aarhus University Hospital.

Grass pollen allergy is a disease with a high symptom burden for the affected individual and of great socioeconomic importance due to its high prevalence. Allergen-specific immunotherapy is the only treatment that changes the underlying disease mechanisms. Unfortunately, current therapies are expensive, complicated, and have many side effects. Therefore, many patients do not complete the treatment or do not start at all. Thus, there are many untreated patients in Denmark and other westernised countries and there is a need for better treatments.

At the Allergy Center AUH, Department of Respiratory Diseases and Allergy, Aarhus University Hospital, this PhD project has investigated the effect of a form of treatment in which allergy medicine is injected directly into lymph nodes (intralymphatic immunotherapy, ILIT). This treatment stimulates the immune system to a high degree and the duration of the treatment can therefore be reduced to 3 injections given over three months. The current treatment takes 3 years and includes 30-50 injections. The PhD project examines the effect of the treatment compared to placebo and finds that the burden of allergy symptoms and the use of allergy medication is reduced during the treatment. The effect was greatest in the first year after treatment, but persisted for three years after treatment. These results confirm other studies in the treatment method and strengthen the idea that the treatment is effective. The injections were safe and gave few side effects. However, the study was small and a larger study is needed to finally confirm effectiveness before implementation in the clinic. The research group is in the process of planning a large multicenter and multinational research project that will start in 2021. The injections must be given precisely into the lymph nodes to give a good effect and they are technically challenging. The Ph.D. includes studies of the importance of the quality of the injections related to the effect of the treatment. Quality of treatment, but thankfully not side effects, depend on the number of successful injections into lymph nodes. In addition, it examines how untrained physicians learn to perform the injections and the effect of an training program developed specifically for the treatment is examined. The Ph.d. concludes that the treatment is effective but dependent on the doctors being adequately trained in the technique. The perspectives from the PhD project are far-reaching, because the new treatment method will probably be attractive to many patients and the PhD project eliminates several of the obstacles that have limited implementation in the clinic.

The defence is public and takes place on 3.12 2020 at auditorium A (G206-154), Aarhus University Hospital. Palle Juul-Jensens Boulevard 99, 8200 Aarhus N. Please register your participation with Mette Toft (mettflas@rm.dk) with the text SHS PhD in the title to ensure COVID-19 control. For more information, please contact PhD student Søren Helbo Skaarup, email: soeska@rm.dk, Phone +45 28911869

Assessment committee:

Vivi Schlünssen, MD, Professor, Department of Occupational Medicine, Aarhus University Hospital, Department of Public Health, Aarhus University and Danish Research Center for the Working Environment, Copenhagen.

Thomas Kündig, Professor, Dr.med, Dermatological Clinic, University Hospital Zurich, Switzerland.

Lone Winter, MD, Dr.med. Clinic for Allergy, Gentofte Hospital, Denmark.

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