

Short summary

Potential applications and value of novel skin imaging techniques in connective tissue disorders

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Connective tissue disorders (CTDs) are characterized by damaged collagen and/or elastin fibers, which can lead to loss of dermal elasticity and loose, fragile skin that can significantly decrease quality of life. Later in life, various organs can be affected, and severe systemic involvement may develop. In our presentation we introduce novel imaging techniques including nonlinear optical (NLO) microscopy, multispectral imaging and high-frequency ultrasound (HFUS) to visualize the characteristic skin changes in CTDs.

NLO microscopy revealed mid-dermal calcium salts, fragmented elastic fibers and abnormal collagen fibers in pseudoxanthoma elasticum (PXE). In patients with Ehlers-Danlos syndrome loosely, disorganized collagen fibers were identified with NLO microscopy. Characteristic dermoscopic pattern of PXE could be visualized in higher contrast in multispectral images and significantly higher intensity values were found in PXE-affected skin areas compared to healthy skin. Upon HFUS imaging, we found oval hypoechogenic areas in the involved skin areas of patients with PXE.

Novel imaging techniques may prove useful in the early diagnosis of CTDs. They may be also used for the objective follow up of the progression of CTDs, and the assessment of the efficacy of novel therapeutic approaches in the future.

Biography

Klára Farkas, MD graduated at Semmelweis University Hungary in 2020. She is a Phd fellow and the topic of her research is „Innovative multimodal imaging approaches in the field of dermatology and dermato-oncology”. Her PhD supervisors are Marta Medvecz, MD, PhD and Norbert Kiss, MD, PhD. She began her research work as a medical student at the Department of Dermatology, Venereology and Dermatoooncology. She won the Special Prize at the National Scientific Students' Associations Conference and at the Congress of the Hungarian Dermatological Society. Her recent work focuses on the novel imaging techniques of pseudoxanthoma elasticum.



CUTIS LAXA INTERNATIONALE and
GHENT UNIVERSITY HOSPITAL
Organize the
6th CUTIS LAXA DAYS

PROGRAMME

THURSDAY 15th SEPTEMBER : SYMPOSIUM*

Conference Center « Het Pand »
Onderbergen 1 - 9000 Gent

08:00-09:00 WELCOME

09:00-09:15 SYMPOSIUM OPENING

Prof. Dr. Bert Callewaert

09:15-10h45 **SESSION I: Diagnosis and General Management in CL (CHAIR: Uwe Kornak, Gerhard Sengle)**

Prof. Dr. Bert Callewaert, MD (Ghent, Belgium): Classification of CL disorders and General Management Guidelines (40')

Dr. Laura Muiño Mosquera, MD (Ghent, Belgium): Cardiovascular Follow-up in CL (15')

Mrs. Klara Farkas, MD (Budapest, Hungary): Potential applications and value of novel skin imaging techniques in connective tissue disorders (15')

Prof. Dr. Christine Bodemer, MD (Paris, France): Embedding CL in ERN Skin & ERN-Ithaca (20')

10:45-11:15 Coffee Break

11:15-12:45 **SESSION II: Pathophysiology and State-of-the-art in the Different CL Subtypes (CHAIR: Thatjana Gardeitchik, Björn Fischer-Zirnsak)**

Prof. Gerhard Sengle (Cologne, Germany): Matrix Biology – What can we learn from animal modelling? (30')

Mrs. Aude Beyens, MD (Ghent, Belgium): Structural Defects of Connective Tissue Proteins and CL (30')

Prof. Dr. Uwe Kornak, MD (Göttingen, Germany): The Secretory Pathway, Glycosylation, and Cutis Laxa (30')

12:45-14:00 LUNCH, POSTER SESSION & NETWORKING

14:00-15:30 **SESSION III: Pathophysiology and State-of-the-art in the Different CL Subtypes (continued) (CHAIR: Zsolt Urban, Gert Matthijs)**

Dr. Thatjana Gardeitchik, MD (Nijmegen, the Netherlands): Neurometabolic Defects in Cutis Laxa (30')

Dr. Björn Fischer-Zirnsak (Berlin, Germany): The mitochondrion and Cutis Laxa (30')

Prof. Dr. Smail Hadj-Rabia (Paris, France): MD, Acquired Cutis Laxa (30')

15:30-16:00 Coffee Break

16:00-17:30 **SESSION IV: Organization of Care (CHAIR: Christine Bodemer, Bert Callewaert)**

Prof. Dr. Zsolt Urban (Pittsburgh, USA): American Cutis Laxa Clinics (30')

Mrs. Marie-Claude Boiteux (President Cutis Laxa Internationale): Patients' and Caregivers' Perspectives: Patient Journeys (20')

Mrs. Elif Yilmaz Gulec, MD(Istanbul, Turkey): Cutis laxa in Turkey: Challenges, opportunities, and collaborations

Dr. Karolien Aelbrecht (Ghent, Belgium): Results from the Focus Groups with CL Patients – Discussion on Future Research (20')

17:30-18:00 GENERAL DISCUSSION, POSTER AWARD, CLOSURE

Dear friends, speakers, session chairs,

Please find attached the final **program** for the symposium day during the 6th Cutis laxa days. The symposium will take place on September 15th in 'het Pand'. You are also invited to join the research networking day on September 16th at the Ghent University Hospital.

Please note that Mr. Paul De Brem will also moderate the session to make them more accessible for the patients. So far about 30 cutis laxa families have registered for the symposium.

Within this regard, please adhere to the **following suggestions for you presentation**:

- Make sure that patients will be able to capture the main message
- Keep your talk a bit shorter than the allotted time frame in order to leave some time for questions.
- Paul De Brem will also contact each of you at the end of August / beginning of July in order to prepare a short introduction at the symposium
- Please provide a short abstract and/or 5 key messages for the progra book.
- Please provide a picture and/or short biography for the program book

If not yet done so, please **book your travel as soon as possible**. We will reimburse your travel costs (economy for flights, first class for trains). Also let us know **how many nights** you would stay in Ghent (max of three). Additional nights would be at your own expense. Of course, you are also invited to the symposium dinner.

I am very much looking forward to meeting with all of you!

All the best

Bert

On behalf of the organizing committee

@Norbert, please forward to Klara – I do not have her email address yet!