BIODERMA CONGRESS REPORTS

EWMA 2026

Reports written by Dr Elena CONDE MONTERO (Dermatologist, Spain)

Gut/skin axis & its importance in skin conditions

Reports written by Dr Elena CONDE MONTERO (Dermatologist, Spain)
Speakers: Sophie Charlotte Liegenfeld (Hamburg) and Chris Callewaert (Ghent)

Pathogenic and non-pathogenic microbes in the wound microbiome—*how to flip the switch?*

Speaker: Sophie Charlotte Liegenfeld (Hamburg)

Dr. Sophie Charlotte Liegenfeld focused her presentation on the role of the wound microbiome in chronic wound pathophysiology and on the concept that not all microorganisms present within a wound should be regarded as pathogenic. The speaker explained that healthy skin is characterized by high microbial diversity and a relatively stable ecological balance that contributes to protection against pathogen colonization.

In contrast, chronic wounds are associated with reduced microbial diversity, predominance of a limited number of bacterial species, and biofilm formation, all of which contribute to delayed healing.

The speaker emphasized that microorganisms such as Staphylococcus aureus and Corynebacterium may be identified both in healthy skin and in chronic wounds. She stressed that the clinical significance of a microorganism depends not only on its presence, but also on the wound microenvironment and host conditions. In this context, commensal bacteria may shift toward pathogenic behaviour under unfavorable local conditions.

Dr. Liegenfeld reviewed the microorganisms most frequently associated with chronic wounds, including Staphylococcus aureus, Pseudomonas aeruginosa, Enterobacter spp., Proteus mirabilis, and Corynebacterium spp. She also highlighted the potential protective role of commensal organisms such as Staphylococcus epidermidis and Cutibacterium acnes in maintaining microbial balance.

A major concept presented during the lecture was the transition from a traditional “microbial eradication” approach toward the concept of “microbiome modulation.” The speaker argued that future wound management strategies should aim to restore and maintain microbial equilibrium rather than indiscriminately eliminate bacteria.

Several therapeutic strategies for microbiome modulation were discussed. These included debridement when clinically indicated, moisture and exudate control to stabilize the wound environment, and pH modulation. Dr. Liegenfeld explained that lowering wound pH may inhibit biofilm formation and pathogen predominance, although she acknowledged that no universally defined target pH currently exists for all wound types.

Finally, the speaker discussed the potential role of probiotics as a future therapeutic approach capable of positively modifying the wound microbiome and supporting wound healing, describing them as a potentially transformative strategy in the field.

Gut/skin axis & its importance in skin conditions

Speaker: Chris Callewaert (Ghent)

Dr. Chris Callewaert presented an overview of the gut–skin axis and the emerging evidence linking intestinal microbiota, diet, immune modulation, and skin diseases. The speaker began by highlighting the marked reduction in skin bacterial diversity associated with urbanization and modern Western lifestyles.

He explained that Western dietary patterns significantly influence gut immune function, affecting innate and adaptive immune responses as well as intestinal epithelial cells. According to the speaker, many immunological mechanisms involved in intestinal homeostasis are closely related to those regulating skin immunity, supporting the concept of a functional gut–skin axis.

Dr. Callewaert emphasized the modulatory effects of several metabolites and dietary compounds on both gut and skin physiology. Among the compounds discussed were vitamin D, GABA, catechins, polyphenols, lycopene, phytomolecules, serotonin, dopamine, and acetylcholine. Particular attention was given to short-chain fatty acids (SCFAs) derived from dietary fibre fermentation, which were described as key mediators linking gut and skin health. The speaker noted that reduced populations of SCFA-producing bacteria have been reported in inflammatory skin diseases such as psoriasis, atopic dermatitis, and hidradenitis suppurativa.

The presentation also addressed the relationship between systemic therapies and microbiome modulation. Dr. Callewaert explained that reducing inflammation through biologic therapies, such as adalimumab, may indirectly reduce *Staphylococcus aureus* abundance in inflammatory skin diseases.

Regarding hidradenitis suppurativa, the speaker reviewed microbiome alterations involving microorganisms such as *Saccharomyces*, *Prevotella*, and *Porphyromonas*, illustrating the complex microbial dysbiosis associated with the disease. He also discussed the relationship between diet, microbiota, and body odour, summarizing this concept with the statement: "we smell how we eat."

The lecture additionally referred to diabetic foot ulcers as an example of the complex interaction between microbiota, inflammation, immunity, and tissue repair.

During the discussion session, it was acknowledged that current evidence regarding the gut–skin axis remains limited and that further studies are required to better understand these interactions. It was also emphasized that skin barrier integrity should not be overlooked when discussing the impact of diet and microbiota on skin diseases.

Focus session: practical applications of lifestyle medicine in patients with chronic and complex wounds: a multidisciplinary approach

Reports written by Dr Elena CONDE MONTERO (Dermatologist, Spain)
Speakers: Sara Magalhães (Lisbon, Portugal), Rubelio B Martinez Morales (Mexico), Maria del Pilar Zárate Moreno (Mexico City, Mexico) and Alejandro Vivero (Córdoba, Argentina)

Lifestyle medicine foundations: why wound care requires a systemic approach

Speaker: Sara Magalhães (Lisbon, Portugal)

Dr. Sara Magalhães introduced the principles of Lifestyle Medicine and discussed why wound care should be approached from a systemic and holistic perspective rather than focusing exclusively on local wound management. The speaker began by presenting the six pillars of Lifestyle Medicine, including sleep, nutrition, physical activity, stress management, social connection, and healthy behaviours. She emphasized that chronic wounds are not isolated local problems, but conditions strongly influenced by behavioural, metabolic, psychological, and social determinants.

During the presentation, Dr. Magalhães insisted that Lifestyle Medicine is frequently misunderstood. One of the key messages was that it should not be considered alternative medicine, but rather an evidence-based discipline grounded in physiology and clinical research.

She also stressed that Lifestyle Medicine is not simply “giving advice,” but involves structured and measurable interventions requiring proper clinical assessment and follow-up.

Another important point emphasized by the speaker was that Lifestyle Medicine should not become a form of patient blaming. She explained that human behaviour is influenced by biology and context, and therefore clinicians should focus on increasing patient capacity and support rather than generating guilt. In addition, she highlighted that Lifestyle Medicine is not unrealistic or excessively time-consuming idealism, since even small and targeted interventions may significantly influence clinical outcomes and can be integrated into routine practice.

The speaker also discussed practical communication skills required for behavioural interventions, presenting the OARS model (Open-ended questions, Affirmations, Reflective listening, and Summaries).

She explained that these communication tools may help clinicians better explore patients’ perceptions, reinforce positive changes, improve therapeutic relationships, and facilitate adherence to lifestyle modifications.

Another concept presented was the transtheoretical model of behavioural change by Prochaska and DiClemente. Dr. Magalhães emphasized that effective interventions require understanding the stage at which the patient is situated within the behavioural change process, including pre-contemplation, contemplation, preparation, action, maintenance, and relapse.

Finally, the speaker addressed the challenges of implementing Lifestyle Medicine in clinical practice.

These included limited consultation time and resources, lack of training and support systems, gaps between evidence and real-world implementation, limited awareness among healthcare professionals and policymakers, institutional resistance to change, socioeconomic and cultural barriers affecting patient adherence, and limited commercial incentives for non-pharmacological interventions. She concluded by emphasizing the need for truly interdisciplinary teams in wound care and encouraged participants to "prescribe" activities in the community to prevent loneliness.

Lifestyle determinants of tissue repair: mechanisms and clinical evidence

Speaker: Rubelio B Martinez Morales (Mexico)

Dr. Rubelio Martínez focused his presentation on the mechanisms through which lifestyle factors influence wound healing and discussed the current evidence supporting Lifestyle Medicine interventions in wound care.

One of the key points emphasized by the speaker was that perfect clinical trials rarely exist in real-world wound care. He explained that many traditional study designs fail to fully reflect the complexity and heterogeneity of patients encountered in daily clinical practice. Despite the limitations of the current evidence, Dr. Martínez Morales argued that the influence of lifestyle factors on tissue repair is biologically plausible and increasingly supported by emerging research.

The speaker described Lifestyle Medicine as a patient-centred approach in which patients play an active role in their own health and healing process. He stressed that patients not only have power over many behavioural determinants of health, but also responsibility in maintaining long-term therapeutic changes.

Several physiological mechanisms linking lifestyle and wound healing were discussed. These included the effects of sleep, nutrition, stress management, emotional wellbeing, social connection, and behaviour on inflammation, immune regulation, metabolic function, and tissue regeneration. Dr. Martínez Morales referred to EWMA documents addressing Lifestyle Medicine in wound care and highlighted the growing recognition of these concepts within international wound healing societies.

The lecture also stressed the importance of continuing to generate scientific evidence in this field. Although the current literature remains limited in some areas, the speaker noted that there is increasing global interest in Lifestyle Medicine, with a growing number of professional associations and scientific initiatives dedicated to this discipline.

The speaker also referred to the limitations of the current evidence regarding physical activity interventions in wound healing. He highlighted that "lack of evidence" should not be interpreted as "evidence of lack of effect," particularly in complex patient populations.

Factors such as age, frailty, reduced mobility, and obesity may influence patients' ability to engage in physical activity and may partly explain the heterogeneity observed across studies. He emphasized the need for more individualized and realistic interventions adapted to real-world patients.

When lifestyle changes transform wound outcomes: real cases and practical lessons

Speaker: Maria del Pilar Zárate Moreno (Mexico City, Mexico)

Dr. Zárate presented several clinical cases illustrating the impact of lifestyle factors on wound healing outcomes and emphasized the importance of adopting a holistic and patient-centred perspective in clinical practice.

One of the most important concepts highlighted during the presentation was that wound improvement does not necessarily imply overall patient recovery. The speaker presented examples of patients whose wounds showed progressive local healing under appropriate wound care while the patients themselves experienced clinical deterioration, including fatigue, syncope, anaemia, and declining functional status due to severe undernutrition and inadequate systemic support.

Dr. Zárate emphasized that nutritional interventions must be realistic and adapted to the patient's social and cultural context in order to be effective. She advocated for the use of familiar foods and dietary recommendations that fit local eating patterns and socioeconomic realities rather than idealized nutritional prescriptions that patients may be unable to follow.

Another major message of the lecture was that healing does not occur in isolation. The speaker stressed the importance of patient engagement, family involvement, and environmental factors in the healing process.

Attention should not only focus on the wound itself, but also on the patient's home environment, daily routines, social relationships, and emotional wellbeing.

The speaker also discussed how hospitalization, stress, loneliness, and disconnection from normal life may negatively influence recovery. According to Dr. Zárate, wound closure alone should not be considered the sole marker of successful treatment if the patient remains physically, emotionally, or socially compromised.

Overall, the presentation reinforced the importance of understanding wound healing within the broader context of the patient's life and highlighted the value of practical, individualized, and socially adapted interventions.

How can we apply lifestyle medicine in wound care? exploring ideas together

Speaker: Alejandro Vivero (Córdoba, Argentina)

Dr. Alejandro Vivero focused his presentation on the practical application of Lifestyle Medicine principles in wound care, **shared clinical cases, and emphasized** the importance of adapting interventions to the reality of patients with chronic wounds.

One of the clinical cases presented involved a patient with a severe arterial ulcer who refused amputation. According to the speaker, substantial improvements in metabolic status and eventual wound healing were achieved through lifestyle modifications, particularly physical activity and nutritional optimization. The case was presented as an example of how Lifestyle Medicine may contribute not only to wound healing but also, in some cases, to limb preservation.

The speaker emphasized that pain plays a central role in the deterioration of patients with chronic wounds. Due to pain, many patients experience poor sleep quality and spend prolonged periods with their legs in dependent positions, which may worsen oedema and delay healing. Dr. Vivero therefore insisted that reducing pain and improving sleep quality should be considered therapeutic priorities during the first stages of wound management.

Another major topic addressed during the lecture was the relationship between obesity, chronic inflammation, reduced mobility, and wound chronicity. The speaker stressed that patients with chronic wounds should be encouraged to move whenever possible, although he acknowledged the major barriers faced by many patients, including frailty, amputations, dementia, disability, loneliness, depression, and social isolation.

Dr. Vivero highlighted the importance of empathy and personalized medicine in helping patients achieve realistic goals. He explained that family members may become important therapeutic partners in improving adherence and supporting behavioural change. The presentation also included practical examples of simple interventions, such as ankle dorsiflexion exercises, which may improve calf muscle pump function and, when combined with compression therapy, contribute to wound healing.

During the conclusions, the speaker emphasized that Lifestyle Medicine extends beyond metabolic diseases and can be successfully applied to patients with chronic wounds. He highlighted that many Lifestyle Medicine interventions are essentially free and may have a substantial impact on patient outcomes. According to Dr. Vivero, the priorities during the first week of management should include identifying the wound aetiology, reducing pain, and improving sleep quality. He also insisted on the importance of addressing the disease causing the wound together with wound management itself and considering the patient's social context. Finally, the lecture concluded by reinforcing the need for multidisciplinary teams, which were associated with better clinical outcomes.

Focus session: microenvironmental pH levels in chronic wounds

Reports written by Dr Elena CONDE MONTERO (Dermatologist, Spain)
Speakers: Terry Swanson (Australia) and Georgina Gethin (Galway, Ireland)

The role of pH in wound healing

Speaker: Terry Swanson (Australia)

Dr. Terry Swanson discussed the important role of wound pH in tissue repair, chronic inflammation, biofilm persistence, bacterial proliferation, and antimicrobial efficacy. The speaker began by explaining that the pH of intact skin is normally acidic, ranging between 4.5 and 6.5, mainly due to the presence of free fatty acids, natural moisturizing factors, urocanic acid, carbonic acid, and keratins. In contrast, acute wounds have been reported to present a mean pH of approximately 7.4, while chronic wounds are frequently more alkaline, with reported pH values ranging from 7.15 to 8.9.

The speaker discussed the important role of wound pH in chronic wound healing, biofilm persistence, and antimicrobial efficacy. Alkaline wound environments were described as promoting bacterial adhesion, biofilm stability, and interspecies microbial communication, contributing to chronic inflammation, tissue breakdown, and delayed healing. Infection itself may further increase wound pH through the production of alkaline bacterial by-products such as ammonia, creating a vicious cycle that supports bacterial persistence, protease activity, and extracellular matrix degradation.

The lecture also emphasized that wound pH can significantly influence the efficacy of cleansing solutions and antiseptics.

Most antiseptics were reported to be less effective in alkaline conditions, while povidone-iodine, silver, and hypochlorous acid may perform better in slightly acidic environments. The speaker reviewed additional factors affecting antiseptic efficacy, including biofilm presence, exudate amount, exposure time, and solution concentration, highlighting the importance of "antiseptic stewardship" in wound care.

Finally, the presentation explored the influence of pH on cellular activity and tissue repair. Wound pH was described as affecting oxygen release into tissues, angiogenesis, collagen formation, macrophage and fibroblast activity, microbial proliferation, and skin graft take. Particular attention was given to the Bohr effect, explaining that lower pH enhances oxygen release from hemoglobin into tissues. Slightly acidic environments were considered favorable for wound healing, especially due to improved fibroblast proliferation and extracellular matrix production.

Overall, the speaker emphasized that maintaining a slightly acidic wound environment may help control protease activity, reduce bacterial burden, preserve newly formed tissue, and promote faster and more effective healing. Dr. Swanson concluded by highlighting the future potential of pH-responsive dressings and wearable technologies capable of dynamically modulating wound pH to reduce biofilm formation, improve antimicrobial efficacy, and support tissue regeneration.

pH as a diagnostic tool

Speaker: Georgina Gethin (Galway, Ireland)

Dr. Georgina Gethin focused her lecture on the potential role of wound pH as a diagnostic and prognostic biomarker in wound care and questioned whether pH measurement currently fulfills the criteria required to be considered a clinically useful diagnostic tool.

The presentation reviewed the existing literature evaluating wound pH in acute wounds, chronic wounds, and infected wounds. The speaker explained that wound depth and tissue characteristics may influence pH values, making interpretation more complex in clinical practice.

Several studies assessing pH measurement as a wound assessment tool were discussed, including Wound pH and Surface Temperature as a Predictive Biomarker of Healing and Evaluation of pH Measurement as a Method of Wound Assessment.

A major topic addressed during the lecture was the relationship between wound pH and healing trajectories. Non-healing wounds were described as typically associated with a more alkaline environment, whereas healing wounds tend to become progressively more acidic over time. A possible pH threshold between 7.6 and 7.8 was discussed as a potential indicator of poor healing. Observational studies showed that healing wounds frequently demonstrate a gradual reduction in pH over time, and that a decrease of one pH unit may correlate with significant wound size reduction.

Particular attention was given to the practical clinical relevance of pH measurement. One of the central questions repeatedly raised during the lecture was whether knowing the pH of a wound truly changes clinical decision-making in daily practice.

Dr. Gethin questioned whether pH measurement currently provides actionable information beyond what clinicians already obtain through standard clinical assessment, especially in situations such as suspected infection or delayed healing. The speaker suggested that pH measurement may potentially become useful as an adjunctive tool in difficult-to-assess wounds, such as clinically infected wounds, although current evidence remains insufficient for routine implementation.

The lecture also introduced the concept of “theranostics,” in which wound pH could function both as a diagnostic biomarker and as a therapeutic target. Smart dressings incorporating pH sensors and colorimetric technologies were presented, including systems potentially compatible with smartphone-based visualization and monitoring.

However, Dr. Gethin emphasized that no current pH-monitoring technology has yet achieved the level of standardization, affordability, and clinical validation necessary for routine medical use.

The presentation concluded that future developments should focus on clinically meaningful, easy-to-use, and cost-effective pH-monitoring systems capable of supporting real-world clinical decision-making and potentially transforming chronic wound care management.

Panel debate: wound cleansing

Reports written by Dr Elena CONDE MONTERO (Dermatologist, Spain)

Speakers: José Contreras (Mexico) and Paulo Ramos (Portugal)

This interactive debate explored one of the most routine yet controversial aspects of wound care: wound cleansing. Dr. José Contreras and Paulo Ramos framed the discussion around a central question: "We all cleanse wounds… but do we always know why?" The session challenged participants to reflect on whether wound cleansing is always evidence-based or whether, in many situations, it has become a ritualized practice embedded in protocols and daily routines.

One of the most striking moments of the debate occurred at the beginning of the session, when the audience was asked whether all wounds should always be cleansed. Most attendees initially answered yes. However, as the discussion evolved, it became increasingly clear that this response was largely driven by habit, protocols, and ritual rather than strong scientific evidence.

Considerable debate focused on where the boundary lies between cleansing and debridement, since in routine practice both concepts frequently overlap.

A large part of the session revolved around clinical scenarios in which the panelists and audience discussed whether they would cleanse specific wounds and why. Particular attention was given to superficial acute wounds and fragile skin injuries in elderly patients, especially skin tears. A consensus progressively emerged that these wounds often benefit from minimal manipulation and that, in all wounds, if the wound trajectory is favorable, clinicians should adopt a less invasive approach regarding cleansing and debridement. On the contrary, when foreign bodies or signs of infection are present, cleansing is needed.

The speakers highlighted that virtually all wound care protocols — both for acute and chronic wounds — begin with cleansing and often debridement, regardless of wound type or healing trajectory. This led to broader discussion about whether such recommendations are truly evidence-based or represent historical dogma that may oversimplify the complexity of wound healing.

The debate also addressed cleansing products and the possible overuse of antiseptics. Saline, tap water, antiseptic solutions, and advanced cleansing products were discussed critically. The panel emphasized the lack of strong comparative evidence supporting many commonly used products and questioned whether “more active” interventions necessarily translate into better outcomes. It was also noted that excessive use of antiseptics may sometimes damage tissue or disrupt healing.

Another important topic was the role of industry in promoting the concept of “wound hygiene.” The panel discussed whether this concept has genuinely improved care or whether it may also contribute to increasing interventionism and product-driven wound management. The audience, which included many nurses as well as industry representatives, participated actively throughout the discussion.

Finally, the panel explored a hypothetical randomized clinical trial comparing routine cleansing and debridement versus minimal intervention or selective cleansing approaches in venous leg ulcers, with compression therapy in both groups. Healing outcomes, pain, patient experience, and costs were discussed as potential endpoints. Both speakers agreed that there is currently a major lack of evidence in this field and emphasized the urgent need for well-designed clinical trials and observational studies evaluating the real benefits and harms of cleansing and debridement across different wound types.

The debate concluded with a general consensus that the most important aspect in wound management is careful observation of wound trajectory and individualized clinical reasoning. Rather than applying routine cleansing and debridement indiscriminately, clinicians should adapt their level of intervention to the wound's behaviour and the patient's context, with the understanding that, in some wounds, especially superficial acute wounds in fragile skin, "less may be more."

Free paper session on acute wounds and burns

Reports written by Dr Elena CONDE MONTERO (Dermatologist, Spain)
Speakers: Ahmed Mohamed Abouzaid (Alexandria, Egypt), Arya Prananda (MEDAN, Indonesia)

Effect of autologous fat transfer on acute burn wound healing: a randomized controlled trial

Speaker: Ahmed Mohamed Abouzaid (Alexandria, Egypt)

Dr. Abouzaid presented the results of a prospective randomized controlled trial evaluating the role of autologous fat grafting in the management of acute burn wounds. The speaker explained that, although fat grafting has already shown promising effects in chronic wounds, vascular ulcers, and scar improvement, robust evidence in acute burns has been lacking, particularly randomized controlled studies comparing this approach with conventional burn care.

The study included 100 patients with superficial and deep dermal burns affecting 10–25% of total body surface area. Patients were randomized either to a protocol based on autologous fat grafting followed by vaseline gauze or to conventional management using serial dressings with silver sulfadiazine and other topical agents.

Dr. Abouzaid emphasized that the group treated with autologous fat grafting demonstrated significantly better clinical outcomes compared with standard care. Patients receiving AFG had shorter hospital stays, required fewer skin grafts, and developed fewer contractures. In addition, scar texture was reported to improve significantly in comparison with the control group.

The speaker also reviewed the histological and laboratory findings supporting these clinical results. Serial histological assessments showed improved tissue repair in the autologous fat grafting group, while flow cytometric analysis confirmed the presence of mesenchymal stem cell markers. According to the speaker, these findings support the hypothesis that adipose-derived regenerative cells may contribute to tissue regeneration and modulation of wound healing responses.

During the presentation, Dr. Abouzaid showed some cases highlighting the potential regenerative role of adipose tissue in acute burn management, suggesting that autologous fat transfer may not only accelerate healing but also reduce long-term scarring and functional impairment. The technique was presented as a promising adjunctive strategy capable of improving both acute and long-term burn outcomes.

The speaker emphasized the need for larger multicentre studies and longer follow-up periods to confirm the reproducibility and durability of these results.

Wound healing effectiveness of peperomia pellucida nanoemulsion compared with moist ointment and silver sulfadiazine in a rat burn model.

Speaker: Arya Prananda (MEDAN, Indonesia)

The speaker began the presentation by explaining that he comes from Indonesia, where a significant proportion of wound care is performed in resource-limited settings and charity wound care programmes. He emphasized the need to develop affordable, accessible, and locally adapted therapies capable of improving wound healing in areas where advanced technologies and expensive dressings are often unavailable. This perspective gave the lecture a particularly inspiring and practical dimension, focused on solutions adapted to real-world clinical challenges.

The presentation focused on the potential role of Peperomia pellucida, a medicinal plant traditionally used in Southeast Asia, in wound healing. The speaker explained that the plant was selected because of its accessibility, low cost, rapid growth, ease of cultivation, minimal maintenance requirements, and pharmacological activity.

Another advantage highlighted was that the leaves can be used with minimal processing, making the approach particularly attractive for low-resource environments.

The experimental study evaluated a Peperomia pellucida nanoemulsion (PPNE) in a rat burn model. Thirty-six rats were divided into six groups, including normal controls, negative controls, moist ointment treatment, silver sulfadiazine, and low- and high-dose PPNE groups.

Burn injuries were induced thermally and several wound healing parameters were analyzed, including wound contraction rate, epithelialization time, hydroxyproline content, collagen density, VEGF levels, inflammatory cytokines, MMP-9, ICAM-1, E-selectin, MCP-1, and CRP.

According to the results presented, PPNE demonstrated improvement across multiple wound healing parameters. The treatment accelerated wound contraction and re-epithelialization, increased collagen deposition and hydroxyproline content, and promoted angiogenesis through increased VEGF expression. The speaker also explained that PPNE appeared to modulate inflammation by reducing pro-inflammatory mediators while supporting anti-inflammatory responses.

Histological analysis showed improved granulation tissue formation, better re-epithelialization, and increased collagen deposition in the PPNE-treated groups compared with controls and silver sulfadiazine-treated wounds. The presentation suggested that the nanoemulsion formulation may improve delivery and tissue penetration of the active compounds.

The speaker concluded that Peperomia pellucida nanoemulsion represents a potentially affordable and scalable wound healing strategy for low-resource settings. However, he acknowledged important current limitations, including challenges related to large-scale production, extraction methods, stability during storage, and the need for further formulation optimization and clinical studies.

Overall, the lecture stood out not only because of the scientific data presented, but also because of its strong focus on contextualized and sustainable wound care solutions adapted to the realities of underserved populations.

International compression club session

Reports written by Dr Elena CONDE MONTERO (Dermatologist, Spain)

Speakers: An-Kathleen Heroes (France)

Self-management of lower limb lymphedema by application of night-time compression

Speaker: An-Kathleen Heroes (France)

This presentation explored the feasibility of a self-management strategy for lower limb lymphedema based on self-applied night-time compression after completion of an intensive multidisciplinary treatment program.

The study included patients with primary or secondary lower limb lymphedema, unilateral or bilateral, stage 2a–3, who were able to perform self-bandaging independently. Patients with severe venous disease, peripheral arterial disease, acute DVT, severe cardiac insufficiency or previous recent intensive treatment were excluded.

One of the most striking findings was the difficulty of recruitment and long-term adherence. Out of 589 patients treated in the multidisciplinary intensive program, only 192 (32.6%) were considered eligible, and finally only 22 patients participated (11.4% of eligible patients). Twenty-one patients were randomized, corresponding to a recruitment rate of only around 0.5–0.8 patients/month.

The talk strongly emphasized the low adherence to the protocol. Among the 170 eligible non-participants, compression-related barriers were the most frequent reason for refusal (50.6%), followed by study-related barriers (39.4%).

The most common complaints were discomfort with bandages (40.7%) and the excessive time and effort required for self-bandaging (19.8%). Some patients simply did not want to learn self-bandaging or preferred professional assistance.

Adherence to compression garments during follow-up was also suboptimal. In the intervention group, only 27.3% wore the compression garment every day during follow-up, compared with 60% in the control group, suggesting that adding night-time bandaging may paradoxically reduce compliance with daytime compression.

An exploratory analysis of efficacy showed no clear sustained superiority of night-time self-bandaging in reducing edema. Relative limb volume changes over the 6-month follow-up were overall comparable between intervention and control groups, with wide interindividual variability. Similarly, lymphedema-specific quality of life (Lymph-ICF-LL) showed only transient improvement at 2 months in the intervention group, without maintenance at later follow-up.

The conclusion of the study was that the major challenge in lower limb lymphedema self-management is not only treatment efficacy, but especially implementation and adherence. The authors suggested that night-time self-bandaging may negatively influence compliance with standard daytime compression garments. Therefore, before introducing more complex compression regimens, future research and clinical practice should first focus on improving adherence to basic compression therapy, simplifying protocols, and better understanding the facilitators and barriers influencing long-term patient compliance.

LoCUS (LOcalised Compression for Ulceration Strapping) multi-centre service evaluation of the Accelerate Fan Strap for peri-malleolar ulcers.

Speaker: Karen Staines (London, United Kingdom)

The session focused on the LoCUS project (Localised Compression for Ulceration using Strapping), developed by the Accelerate team, which evaluates the use of localized "fan strapping" compression techniques for difficult-to-heal peri-malleolar ulcers.

The rationale of the project is based on the observation that standard compression therapy does not work equally well for all venous leg ulcers, particularly those located around the malleolar region. These ulcers are often slower to heal due to persistent localized edema, fibrosis, altered ankle mobility and difficulties achieving effective compression around the ankle anatomy. The "fan strapping" technique aims to provide more focal compression to the peri-malleolar area in addition to standard compression therapy.

The session emphasized that this approach emerged mainly from clinical experience in patients with ulcers considered "hard to heal". The presented cohort included 87 patients, many with significant chronicity and complexity: 71% had previous ulcer recurrence, 20% had ulcers present for more than one year, 55% had a history of recurrent infection, and more than half had reduced ankle mobility. Almost half of ulcers were larger than 5 cm.

The speakers suggested that this subgroup of patients may require strategies beyond conventional compression protocols.

Preliminary findings presented during the session supported the feasibility and apparent safety of the technique, with no significant adverse effects or pressure damage reported.

However, important limitations were acknowledged. The study had a small sample size and lacked a true control group, focusing mainly on patients receiving the strapping intervention. The authors also highlighted the need for cautious interpretation of the results and explained that intention-to-treat analyses are still ongoing.

The overall conclusion of the session was that "standard care will not work for all" patients with peri-malleolar ulceration, and that localized compression strategies such as fan strapping may represent a promising adjunctive approach for difficult-to-heal ulcers. The speakers stressed the importance of identifying patients at high risk of delayed healing earlier and considering alternative compression strategies before ulcers become chronic and refractory.

AyudaMedias: experience of the implementation of a validated algorithm for the recommendation of compression garments

Speaker: Ruben Molina Carrillo

Another interesting session was presented by Ruben Molina Carrillo, who discussed the implementation of *AyudaMedias*, a validated clinical decision-support algorithm designed to help healthcare professionals select the most appropriate compression garment for patients with venous and lymphatic disease.

The presentation focused on the difficulties clinicians frequently encounter when prescribing compression therapy in real-world practice, where factors such as patient autonomy, limb morphology, mobility, tolerance, severity of edema and ability to don or remove garments strongly influence adherence and outcomes.

The aim of the AyudaMedias project is to simplify and standardize decision-making, reducing variability between professionals and facilitating more individualized compression prescriptions.

Ruben Molina explained how the algorithm was developed and validated to guide clinicians through different clinical scenarios, helping match the patient profile with the most suitable compression option. The project also emphasized the importance of improving adherence by selecting garments that patients are realistically able and willing to use in daily life.

A key message of the session was that compression therapy should not be prescribed only according to disease severity, but also according to the patient's functional capacity and lifestyle. The implementation of structured tools such as AyudaMedias may therefore improve both therapeutic precision and long-term compliance with compression treatment.