**Dermal Literature Review**

**Period: 01/11/2023 – 01/12/2023**

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Scientific Highlights:

Burn wound Infections (infections of or preventing infections)

1. Sprayable ciprofloxacin-loaded poloxamer hydrogels for wound infection treatment.
2. Chitosan-sodium percarbonate-based hydrogels with sustained oxygen release potential stimulated angiogenesis and accelerated wound healing.
3. β-Carotene laden antibacterial and antioxidant gelatin/polyglyceryl stearate nano-hydrogel system for burn wound healing application.
4. Pediatric Craniofacial and Neck Burns.
5. The use of intra-articular vancomycin is safe in primary hip and knee arthroplasty.
6. Evolution of Microbial Flora Colonizing Burn Wounds during Hospitalization in Uruguay.
7. A nanocomposite hydrogel for co-delivery of multiple anti-biofilm therapeutics to enhance the treatment of bacterial biofilm-related infections.
8. Patterns of Common Dermatological Conditions among Children and Adolescents in Pakistan.
9. Procedural Promotion of Multiple Stages in the Wound Healing Process by Graphene-Spiky Silica Heterostructured Nanoparticles.
10. A synergistic investigation of azo-thiazole derivatives incorporating thiazole moieties: a comprehensive exploration of their synthesis, characterization, computational insights, solvatochromism, and multimodal biological activity assessment.
11. Methicillin-Resistant Staphylococcus aureus Colonization in Intensive Care and Burn Units: A Narrative Review.
12. A Novel Potential Treatment for Diabetic Foot Ulcers and Non-Healing Ulcers - Case Series.
13. Balanced chemical reactivity, antimicrobial properties and biocompatibility of decellularized dermal matrices for wound healing.

Diabetic Foot Ulcers

1. Outcome of Modified Pirogoff Amputation for Diabetic Foot Infection: A Single-Center Case Series.
2. Exploring the pathogenesis of osteomyelitis accompanied by diabetic foot ulcers using microarray data analysis.
3. Successful Outpatient Treatment of Severe Diabetic-Foot Myositis and Osteomyelitis Caused by Extensively Drug-Resistant Enterococcus faecalis with Teicoplanin plus Rifampicin: A Case Report.
4. Pycnoporus sanguineus Polysaccharides as Reducing Agents: Self-Assembled Composite Nanoparticles for Integrative Diabetic Wound Therapy.
5. Microbiome of limb-threatening diabetic foot ulcers indicates the association of fastidious Stenotrophomonas and major amputation.
6. Redefining Foot Symptoms in a Kidney-Pancreas-Transplanted Type 1 Diabetic Patient: Challenging the Conventional Charcot Foot Diagnosis.
7. Contemporary Medical Management of Peripheral Arterial Disease.
8. Consenso de expertos sobre la eficacia clínica y directrices sobre la terapia de oxígeno transdérmico continuo para la cicatrización de las heridas complejas o difíciles de cicatrizar.
9. Use of Traditional Remedies for Treatment of Diabetic Foot Ulcers: A Cross-Sectional Study at a Tertiary Center in Saudi Arabia.
10. Towards Standardization of Phage Susceptibility Testing: The Israeli Phage Therapy Center "Clinical Phage Microbiology"-A Pipeline Proposal.
11. Automatic foot ulcer segmentation using conditional generative adversarial network (AFSegGAN): A wound management system.
12. Use of a Skin-Covering Pocket as a Local Flap and Negative Pressure Wound Therapy with Instillation and Dwell Time/Negative Pressure Wound Therapy for the Treatment of Diabetic Foot Ulcer with Calcaneal Osteomyelitis: A Case Report.
13. A 2-Stage Approach in Managing Diabetic Forefoot Ulcers.
14. Exploration of the common pathogenic link between COVID-19 and diabetic foot ulcers: An in silico approach.
15. Soft Tissue Reconstruction After Revascularization.
16. Enhancing open clinical trials through blinded evaluations: an exploration with diabetic foot infections.
17. Clinical practice recommendations for infectious disease management of diabetic foot infection (DFI) - 2023 SPILF.
18. Considerations in Charcot Reconstruction.
19. Promising improvement in infected Wound Healing in Type two Diabetic rats by Combined effects of conditioned medium of human adipose-derived stem cells plus Photobiomodulation.
20. Acceleration of a delayed healing wound repair model in diabetic rats by additive impacts of photobiomodulation plus conditioned medium of adipose-derived stem cells.
21. Population pharmacokinetics of vancomycin in patients with diabetic foot infection: a comparison of five models.
22. Whole genome sequencing and pan-genome analysis of Staphylococcus/Mammaliicoccus spp. isolated from diabetic foot ulcers and contralateral healthy skin of Algerian patients.
23. A meta-analysis of the effectiveness of antibacterial bone cement in the treatment of diabetic foot skin wound infections.
24. Risk factors associated with osteomyelitis due to Corynebacterium striatum in patients with diabetic foot.
25. Fighting diabetic foot ulcer by combination therapy, including larva therapy, Medi honey ointment, and silver alginate dressings: A case report.
26. [Progress in clinical diagnosis and treatment of diabetic Charcot neuroarthropathy of foot and ankle].
27. [Effectiveness of tibial transverse transport combined with modified neurolysis in treatment of diabetic foot ulcers].
28. Identification of hub genes and pathways associated with cellular senescence in diabetic foot ulcers via comprehensive transcriptome analysis.
29. Predictive Value of C-Reactive Protein to Albumin Ratio for Amputation Risk in Diabetic Foot Infection.
30. A novel assessment, diagnostic and treatment system for diabetic foot.
31. Peptide TK-HR from the Skin of Chinese Folk Medicine Frog Hoplobatrachus Rugulosus Accelerates Wound Healing via the Activation of the Neurokinin-1 Receptor.
32. Antibacterial Activity of Surfactin and Synergistic Effect with Conventional Antibiotics Against Methicillin-Resistant Staphylococcus aureus Isolated from Patients with Diabetic Foot Ulcers.
33. Fear of Missing Organisms (FOMO): the discordance among broad-spectrum empiric antibiotic therapy, microbiologic results, and definitive antibiotic therapy for diabetic foot infections and lower extremity osteomyelitis.
34. Unveiling Therapeutic Potential: A Systematic Review of Photobiomodulation Therapy and Biological Dressings for Diabetic Foot Ulcers.
35. Examining the effect of polyurethane dressing containing silver particles on the rate of diabetic foot ulcer infection in hospitalized patients: A randomized control study.
36. Foot self-care practices among diabetic patients attending a teaching hospital in Tamil Nadu, India.
37. Exploring the Indications, Levels, and Outcomes of Lower Extremity Amputation at a Tertiary Care Hospital in Pakistan.
38. Limited Clinical Utility of Routine Mycobacterial Cultures for the Management of Diabetic Foot Infections.
39. WHS (Wound Healing Society) guidelines update: Diabetic foot ulcer treatment guidelines.

Venous Leg Ulcers

1. Treatment patterns and outcomes of Medicare enrolees who developed venous leg ulcers.
2. Chronic wound prevalence and the associated cost of treatment in Medicare beneficiaries: changes between 2014 and 2019.
3. An in-vitro evaluation of antifungal, anti-lungcancer (A549), and anti-hyperglycemic activities potential of Andrographis paniculata (Burm. f.) flower extract.

Dermal Biofilms

1. The novel bacteriocin romsacin from Staphylococcus haemolyticus inhibits Gram-positive WHO priority pathogens.
2. Single-cell phenotypes revealed as a key biomarker in bacterial-fungal interactions: a case study of Staphylococcus and Malassezia.
3. Gold nanoparticle conjugation enhances berberine's antibacterial activity against methicillin-resistant Staphylococcus aureus (MRSA).
4. Long-term antibacterial activity of silver-containing hydroxyapatite coatings against Staphylococcus aureus in vitro and invivo.
5. Discovery of new quaternized norharmane dimers as potential anti-MRSA agents.
6. Hyperbaric oxygen therapy counteracts Pseudomonas aeruginosa biofilm micro-compartment phenomenon in murine thermal wounds.
7. A thermosensitive hydrogel formulation of phage and colistin combination for the management of multidrug-resistant Acinetobacter baumannii wound infections.
8. Antibacterial Efficacy of a Chitosan-Based Hydrogel Modified With Epsilon-Poly-l-Lysine Against Pseudomonas aeruginosa in a Murine-Infected Burn Wound Model.
9. The potential of shallot skin powder and actinomycetes metabolites as antimicrobe and antibiofilm in the treatment of eel (Anguilla bicolor bicolor) infected with Aeromonas hydrophila.
10. Antimicrobial peptide 2K4L disrupts the membrane of multidrug-resistant Acinetobacter baumannii and protects mice against sepsis.
11. Design of biodegradable polyurethanes and post-modification with long alkyl chains via inhibiting biofilm formation and killing drug-resistant bacteria for the treatment of wound bacterial infection.
12. A novel antimicrobial peptide Scyreptin(1-30) from Scylla paramamosain exhibiting potential therapy of Pseudomonas aeruginosa early infection in a mouse burn wound model.
13. The adhesin SCF1 mediates Candida auris colonization.
14. Tenacibaculum dicentrarchi produce outer membrane vesicles (OMV) that are associated with the cytotoxic effect in rainbow trout head kidney macrophages.
15. Burkholderia cepacia skin-related ulceration: a case report.
16. The Power of Licorice (Radix glycyrrhizae) to Improve Oral Health: A Comprehensive Review of Its Pharmacological Properties and Clinical Implications.
17. Peptide-Mimicking Poly(2-oxazoline)s Possessing Potent Antifungal Activity and BBB Penetrating Property to Treat Invasive Infections and Meningitis.
18. Antibacterial and antibiofilm effects of Camellia oleifera seed dreg extract and its application in cosmetics.
19. Adding Flying Wings: Butterfly-Shaped NIR-II AIEgens with Multiple Molecular Rotors for Photothermal Combating of Bacterial Biofilms.
20. Rational Design and Antimicrobial Potency Assessment of Abaecin Analogues.
21. On-farm epidemiology, virulence profiling, and molecular characterization of methicillin-resistant Staphylococcus aureus at goat farms.
22. Biofilm heterogeneity-adaptive photoredox catalysis enables red light-triggered nitric oxide release for combating drug-resistant infections.
23. Formulation and In Vivo Evaluation of Biofilm Loaded with Silver Sulfadiazine for Burn Healing.
24. Engineering Antimicrobial Metal-Phenolic Network Nanoparticles with High Biocompatibility for Wound Healing.
25. [Modern methods of adhesive fixation of facial epitheses].
26. First Report of Kocuria kristinae in the Skin of a Cuban Boa (Epicrates angulifer).
27. N-Heterocycle Modified Graphene Quantum Dots as Topoisomerase Targeted Nanoantibiotics for Combating Microbial Infections.
28. Invasive Malassezia Infections.
29. Unravelling host-pathogen interactions by biofilm infected human wound models.
30. Infected Tibial Plateau Open Reduction Internal Fixation Treated Using External Fixation and a Gastrocnemius Flap: A Case Report.

Atopic Dermatitis & SA

1. [Eccema herpético en una paciente con dermatitis atópica].
2. The effectiveness of antibacterial therapeutic clothing compared with non-antibacterial therapeutic clothing in patients with moderate-to-severe atopic dermatitis: A randomized controlled, observer-blind pragmatic trial (ABC trial).
3. A study about the presence of Staphylococcus aureus growth at birth and at 2 months of age in children who developed atopic dermatitis in the first 2 years of life.
4. The Effects of Lumbricus rubellus Extract on Staphylococcus aureus Colonization and IL-31 Levels in Children with Atopic Dermatitis.
5. Citrobacter koseri inhibits the growth of Staphylococcus epidermidis by suppressing iron utilization.
6. Washed microbiota transplantation: a case report of clinical success with skin and gut microbiota improvement in an adolescent boy with atopic dermatitis.

Dermal Fungal

1. UVC-Protective Activity of Lemongrass Among 12 Fat-soluble Herbal Extracts: Rapid Decay Due to Cytotoxicity.
2. Mucorales-disseminated infection in burn wound.
3. Granulomatous dermatitis caused by Exserohilum mcginnisii infection in a cow.
4. Erythroderma combined with deeper dermal dermatophytosis due to Trichophyton rubrum in a patient with myasthenia gravis: first case report and literature review.
5. Impact of miconazole nitrate ferrying cationic and anionic nanoemulsion and gels on permeation profiles of across EpiDerm, artificial membrane, and skin: Instrumental evidences.
6. Sulconazole-Loaded Solid Lipid Nanoparticles for Enhanced Antifungal Activity: In Vitro and In Vivo Approach.
7. Biochemical and gene expression studies reveal the potential of Aspergillus oryzae-fermented broken rice and brewers' rice water extracts as anti-photoageing agents.
8. Curcumin-loaded albumin submicron particles with potential as a cancer therapy: an in vitro study.
9. Antimicrobial peptide-producing dermal preadipocytes defend against Candida albicans skin infection via the FGFR-MEK-ERK pathway.

Competitors

1. Facile fabrication of carboxymethylcellulose/ZnO/g-C3N4 containing nutmeg extract with photocatalytic performance for infected wound healing.
2. Deciphering the molecular and cellular atlas of immune cells in septic patients with different bacterial infections.
3. Prevalence of Mupirocin and Methicillin-Resistant Staphylococcus aureus in Nasal Carriage Among Healthcare Workers in an Intensive Care Unit and Post-decolonization Screening Outcomes at a Tertiary Care Hospital: A Prospective Study.
4. Evaluation of the Effect and Mechanism of Sanhuang Ointment on MRSA Infection in the Skin and Soft Tissue via Network Pharmacology.
5. Antimicrobial susceptibilities and genomic characteristics of methicillin-resistant Staphylococcus aureus resistant to mupirocin in Stockholm, Sweden.
6. Perspectives on antimicrobial properties of Paulownia tomentosa Steud. Fruit products in the control of Staphylococcus aureus infections.
7. Fabrication of geraniol nanophytosomes loaded into polyvinyl alcohol: A new product for the treatment of wounds infected with methicillin-resistant Staphylococcusaureus.
8. A RECALCITRANT SKIN LESION AND SUBSEQUENT INFECTION IN A RECREATIONAL INTRAMURAL MALE ATHLETE: A CASE REPORT.
9. Nasal staphylococci microbiota and resistome in healthy adults in La Rioja, northern Spain: High frequency of toxigenic S. aureus and MSSA-CC398 subclade.

Dressings

1. Multifunctional Chitosan Scaffold Platforms Loaded with Natural Polyphenolic Extracts for Wound Dressing Applications.
2. Genetically encoded zinc-binding collagen-like protein hybrid hydrogels for wound repair.
3. Chitosan-based supramolecular aerogel with "skeletal structure" constructed in natural deep eutectic solvents for medical dressings.
4. Phase Change Material-Embedded Multifunctional Janus Nanofiber Dressing with Directional Moisture Transport, Controlled Release of Anti-Inflammatory Drugs, and Synergistic Antibacterial Properties.
5. Sulfonium-Cross-Linked Hyaluronic Acid-Based Self-Healing Hydrogel: Stimuli-responsive Drug Carrier with Inherent Antibacterial Activity to Counteract Antibiotic-Resistant Bacteria.
6. Versatile Injectable Carboxymethyl Chitosan Hydrogel for Immediate Hemostasis, Robust Tissue Adhesion Barrier, and Antibacterial Applications.
7. Photodynamic antibacterial application of TiO(2)/curcumin/hydroxypropyl-cyclodextrin and its konjac glucomannan composite films.
8. Chitosan coated graphene oxide incorporated sodium alginate hydrogel beads for the controlled release of amoxicillin.
9. Multifunctional natural microneedles based methacrylated Bletilla striata polysaccharide for repairing chronic wounds with bacterial infections.
10. Sucralfate Prevents Pin Site Infections of External Fixators in Open Tibia Fractures.
11. Culture-Delivery Live Probiotics Dressing for Accelerated Infected Wound Healing.
12. Effectiveness of Negative Pressure Wound Therapy During Aeromedical Evacuation Following Soft Tissue Injury and Infection.
13. Sprayable self-assembly multifunctional bioactive poly(ferulic acid) hydrogel for rapid MRSA infected wound repair.
14. Poly(vinyl alcohol)/chitosan hydrogel incorporating chitooligosaccharide-gentisic acid conjugate with antioxidant and antibacterial properties as a potential wound dressing.
15. Multifunctional Regeneration Silicon-Loaded Chitosan Hydrogels for MRSA-Infected Diabetic Wound Healing.
16. Thermal, morphology and bacterial analysis of pH-responsive sodium carboxyl methylcellulose/ fumaric acid/ acrylamide nanocomposite hydrogels: Synthesis and characterization.
17. Preparation and characterization of ι-carrageenan nanocomposite hydrogels with dual anti-HPV and anti-bacterial activities.
18. Tailored chitosan/glycerol micropatterned composite dressings by 3D printing for improved wound healing.
19. Construction and properties of a carbon dots-decorated gelatin-dialdehyde starch hydrogel with pH response release and antibacterial activity.
20. Injectable Self-Expanding/Self-Propelling Hydrogel Adhesive with Procoagulant Activity and Rapid Gelation for Lethal Massive Hemorrhage Management.
21. A highly stretchable, adhesive, and antibacterial hydrogel with chitosan and tobramycin as dynamic cross-linkers for treating the infected diabetic wound.
22. Vancomycin-loaded methylcellulose aerogel scaffolds for advanced bone tissue engineering.
23. Facile fabrication and antibacterial properties of chitosan/acrylamide/gold nanocomposite hydrogel incorporated with Chaetomium globosium extracts from Gingko biloba leaves.
24. Ag nanocomposite hydrogels with immune and regenerative microenvironment regulation promote scarless healing of infected wounds.
25. Porous antimicrobial crosslinked film of hydroxypropyl methylcellulose/carboxymethyl starch incorporating gallic acid for wound dressing application.
26. Polycaprolactone/cress seed mucilage based bilayer antibacterial films containing ZnO nanoparticles with superabsorbent property for the treatment of exuding wounds.
27. Enhanced Antibacterial And Wound Healing Using A Metal-Organic Cluster Inspired by Artificial Photosynthesis.
28. Sterilized Polyhexanide-Releasing Chitosan Membranes with Potential for Use in Antimicrobial Wound Dressings.
29. Antibacterial Efficacy of Manuka Honey-Doped Chitosan-Gelatin Cryogel and Hydrogel Scaffolds in Reducing Infection.
30. Excellent Dark/Light Dual-Mode Photoresponsive Activities Based on g-C(3)N(4)/CMCh/PVA Nanocomposite Hydrogel Using Electron Beam Radiation Method.
31. Alginate-Based Hydrogels Enriched with Lavender Essential Oil: Evaluation of Physicochemical Properties, Antimicrobial Activity, and In Vivo Biocompatibility.
32. Development of chitosan-based cerium and titanium oxide loaded polycaprolactone for cutaneous wound healing and antibacterial applications.
33. Hydrogel Encapsulating Wormwood Essential Oil with Broad-spectrum Antibacterial and Immunomodulatory Properties for Infected Diabetic Wound Healing.
34. A high-efficient antibacterial and biocompatible polyurethane film with Ag@rGO nanostructures prepared by microwave-assisted method: Physicochemical and dermal wound healing evaluation.
35. Silver Nanoparticles and Graphene Oxide Complex as an Anti-Inflammatory Biocompatible Liquid Nano-Dressing for Skin Infected with Staphylococcus aureus.
36. Cotton fiber-based dressings with wireless electrical stimulation and antibacterial activity for wound repair.

Guidelines

1. [Eccema herpético en una paciente con dermatitis atópica].
2. The effectiveness of antibacterial therapeutic clothing compared with non-antibacterial therapeutic clothing in patients with moderate-to-severe atopic dermatitis: A randomized controlled, observer-blind pragmatic trial (ABC trial).
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Other news of possible interest