

主 題：風濕免疫常見疾病之肌肉骨骼超音波檢查

Musculoskeletal Ultrasound in Common Rheumatic Diseases

Moderator: 李克仁 Ko-Jen Li 臺大醫院

張棋楨 Chi-Ching Chang 臺北醫學大學附設醫院

時間 Time	演講題目 Topics	演講者 Speaker
09:00-09:40 RI-S01	Diagnosing Vasculitis with Ultrasound: Findings and Pitfalls	蔡万濠 Wan-Hao Tsai 輔大醫院
09:40-10:20 RI-S02	Soft Tissue Ultrasound for Common Hand Disorders in the Rheumatology Clinic: Enhancing Diagnosis in a Changing Clinical Landscape	賴佩幸 Pei-Hsing Lai 市立聯合醫院忠孝院區
10:20-10:40	Coffee break	
10:40-11:20 RI-S03	Ultrasound Image of Dactylitis	許鶴儂 Heh-Shiang Sheu 臺中榮民總醫院
11:20-12:00 RI-S04	Ultrasound Evaluation of Soft Tissue Infection	林靖麒 Jing-Chi Lin 嘉義長庚醫院

RI-S01

Diagnosing Vasculitis with Ultrasound: Findings and Pitfalls

Wan Hao Tsai

Fu Jen Catholic University Hospital

Ultrasound has become an important tool in the assessment of vasculitis, especially in large-vessel involvement such as giant cell arteritis and Takayasu arteritis. This presentation will review key sonographic findings—including the halo sign, vessel wall thickening, stenosis, and the compression sign—and their correlation with histopathological changes. Attention will be given to common pitfalls, such as misinterpreting atherosclerotic changes or artifacts as vasculitis, and the impact of prior steroid use on imaging results. Practical tips on scanning techniques, probe selection, and standardized protocols will be shared, along with an overview of current international recommendations. Through real case examples, the session aims to provide clinicians with a practical approach to incorporating ultrasound into the diagnostic workup and monitoring of patients with suspected vasculitis.

RI-S02

Soft Tissue Ultrasound for Common Hand Disorders in the Rheumatology Clinic: Enhancing Diagnosis in a Changing Clinical Landscape

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With increasing public awareness of rheumatological diseases and improved accessibility to specialist care in Taiwan, rheumatology clinics are seeing a growing number of patients presenting with symptomatic arthralgia though not yet fitting

into specific classification criteria. Among these, differentiating between early inflammatory arthritis and other mimics—such as erosive hand osteoarthritis or mechanical arthropathies—can pose a diagnostic challenge based solely on clinical examination and conventional imaging.

This session will explore the utility of soft tissue musculoskeletal ultrasound as a frontline tool in the evaluation of common hand disorders encountered in daily rheumatology practice. Advances in ultrasound resolution and technique have enabled detailed visualization of synovitis, tenosynovitis, erosions, osteophytes, and soft tissue changes, which are often undetectable on plain radiographs, particularly in early disease stages. We will highlight how ultrasound not only improves diagnostic confidence but also assists in treatment decision-making and disease monitoring. Special attention will be given to features that help distinguish overlapping syndromes. We will also discuss how ultrasound can guide targeted interventions and contribute to patient education.

As rheumatology practice in Taiwan evolves with increasing patient volumes and diversity, integrating soft tissue ultrasound into routine clinical care is becoming indispensable. This session aims to share practical insights and updated techniques that will empower rheumatologists to enhance diagnostic precision and optimize patient outcomes in common yet often perplexing hand presentations.

RI-S03

Ultrasound Image of Dactylitis

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Dactylitis, or “sausage digit,” is a hallmark of psoriatic arthritis and other spondyloarthritides,

presenting as diffuse swelling of an entire finger or toe with pain and functional limitation. Clinical examination is essential, but ultrasound provides a deeper understanding of the underlying inflammatory changes. High-resolution gray-scale imaging can reveal synovitis, tenosynovitis, soft tissue edema, and enthesitis, while power Doppler highlights increased vascularity reflecting active inflammation.

Ultrasound images of dactylitis often demonstrate concurrent involvement of the flexor tendon sheath, joints, and periarticular soft tissues, underscoring its multifactorial pathology. These features help differentiate dactylitis from isolated joint or tendon disease and support early, targeted treatment strategies.

Beyond diagnosis, ultrasound offers a non-invasive means of tracking therapeutic response, allowing clinicians to adjust management and prevent long-term damage. Integrating imaging findings with clinical assessment enhances diagnostic accuracy, improves disease monitoring, and contributes to better patient outcomes.

Musculoskeletal ultrasound is therefore a practical, dynamic, and widely accessible tool in the evaluation of dactylitis, playing an important role in both everyday rheumatology practice and research settings.

RI-S04