

Foot

Healthy Subject
Crystal-related
Other Diseases

Foot



Healthy Subject

Right first
metatarsophalangeal
joint

Dorsal longitudinal scan

MT = metatarsus

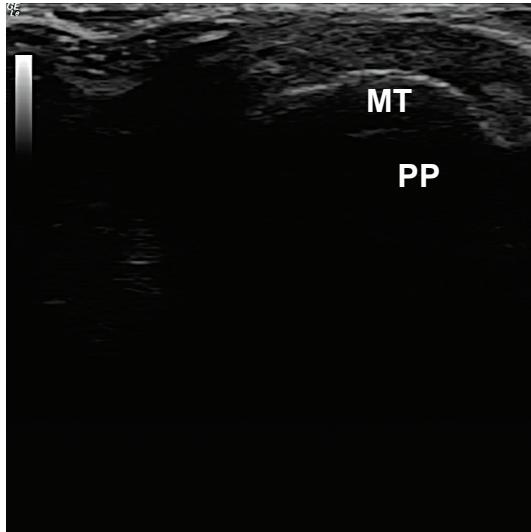
PP = proximal phalanx



Chang, Chi-Ching

Grey scale US using a Logiq 5 (General Electrics)

Foot



Healthy Subject

Right first
metatarsophalangeal
joint

Transverse scan

MT = metatarsus

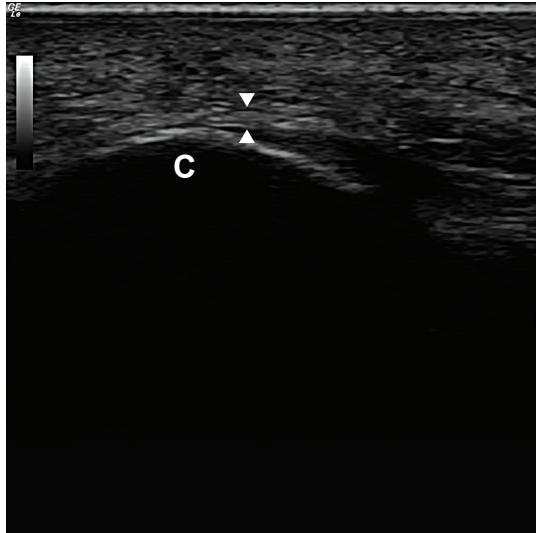
PP = proximal phalanx



Chang, Chi-Ching

Grey scale US using a Logiq 5 (General Electrics)

Foot



Healthy Subject

Longitudinal scan of
plantar fasciae

Plantar fascia (between
arrowhead)

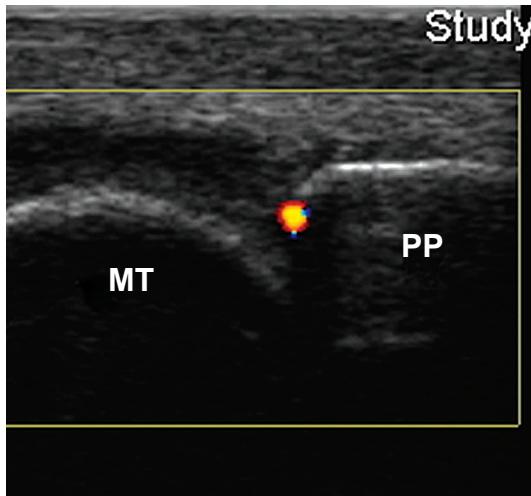
C = calcaneus



Chang, Chi-Ching

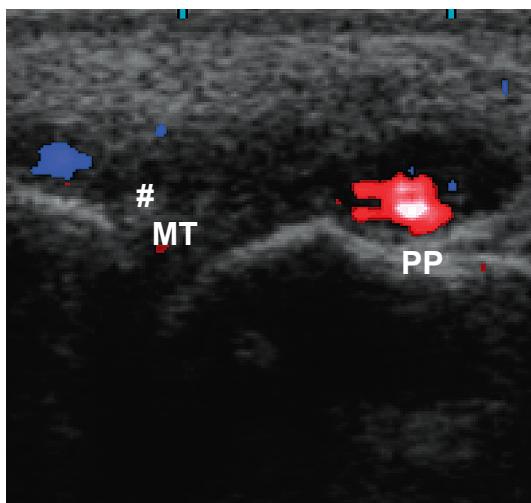
Grey scale US using a Logiq 5 (General Electrics)

Foot



Lin, Liang-Hung

Grey scale US using a Logiq 5 (General Electrics) with a linear probe (12L)



Chen, Hsin-Hua

Color Doppler US using a Logiq 500 (General Electrics Medical Systems, Milwaukee, WI) with a linear probe (7-12MHz)

Crystal-related Gouty Arthritis

Dorsal longitudinal scan of first metacarpophalangeal joint

Proliferative synovitis.
Marked joint cavity widening mainly due to synovial proliferation.

MT = metatarsus

PP = proximal phalanx

Crystal-related Gouty Arthritis

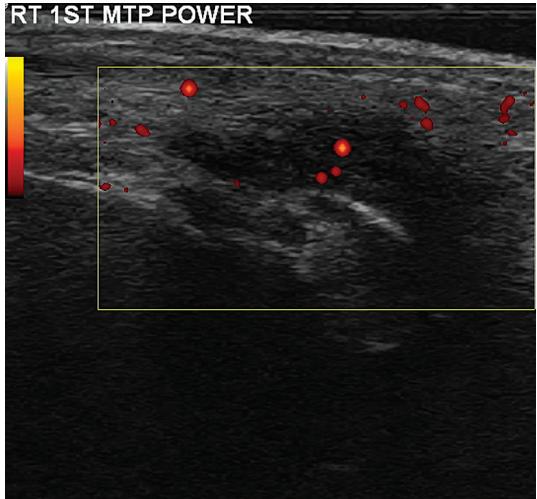
Dorsal longitudinal scan of 1st MTP joint

Widening of joint cavity mainly due to with synovial thickening(#). Color Doppler signals present in the synovium.

MT = metatarsus

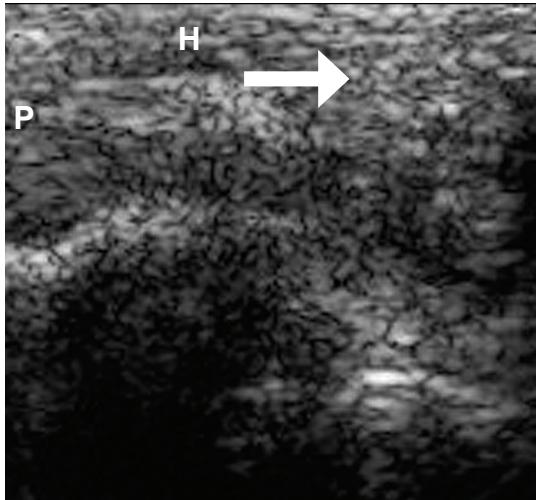
PP = proximal phalanx

Foot



Kuo, Chang-Fu

Grey scale US using a Logiq 9 (General Electrics Medical Systems, Milwaukee, WI) with a volumetric probe (4D16L), with power doppler



Chen, Ying-Chou

Grey scale US using CGM OPUS 5000

Crystal-related Gouty Arthritis

Dorsal longitudinal scan of first metatarsophalangeal joint

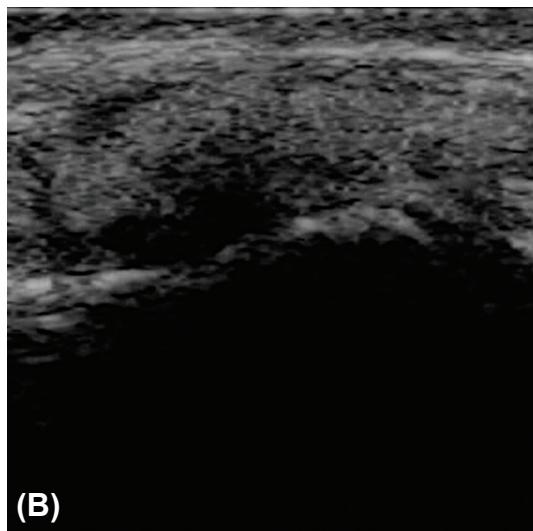
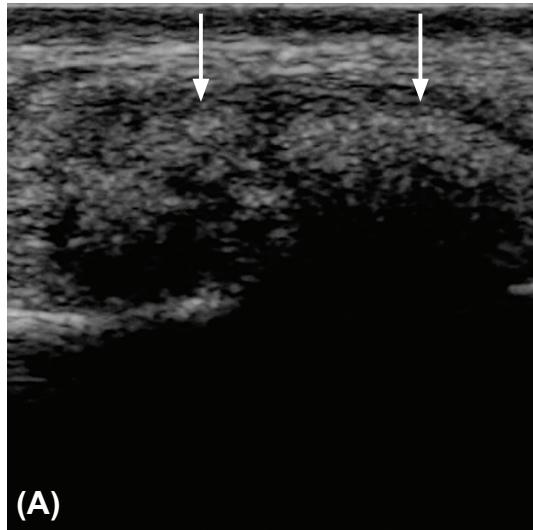
Extended joint capsule with marked synovial fluid accumulation. High vascularity was found by power doppler mode.

Crystal-related Chronic Tophaceous Gout

Longitudinal scan along the plantar fascia

Punctate pattern of "urate sand" is identified in the hypodermis (arrow) and along the proximal plantar fascia. Abbreviations: Hypodermis (H), Plantar fascia (P)

Foot



Crystal-related Tophi

Longitudinal scan over medial aspect of 1st MTP joint (A) and power Doppler image (B).

Longitudinal scan over medial aspect of 1st MTP shows an intraarticular heterogenous hyperechoic lesion with or without acoustic shadow (arrows) (A).

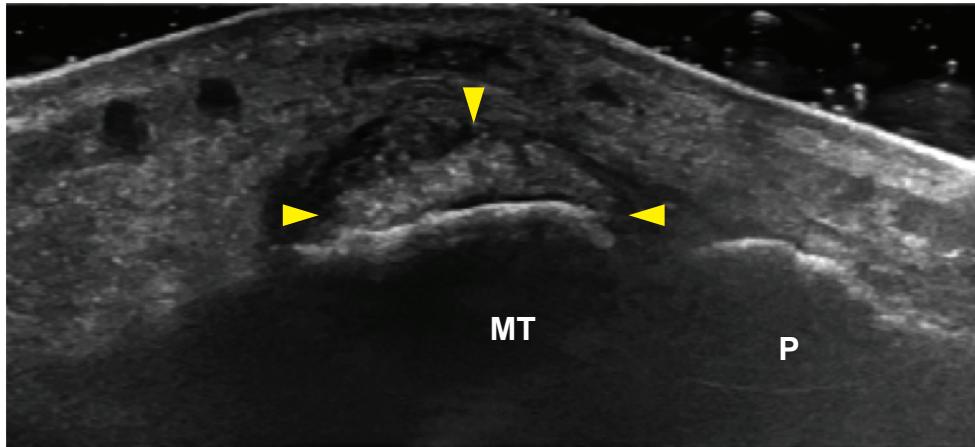
PDUS shows no Doppler signal within joint cavity. The above findings are compatible with tophi deposition within 1st MTP joint cavity(B).

Chen, Hsin-Hua

Grey scale and power Doppler US using a Philip iU22 with a volumetric probe (4D, 5-13MHz)

Foot

Crystal-related



Lai, Kuo-Lung

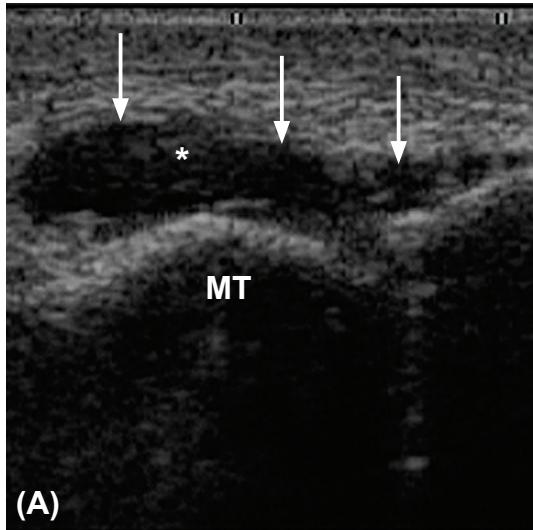
Gray scale US using a GE E9 (General Electrics) with a linear probe (15MHz)

Tophaceous gouty arthritis

Longitudinal scan of first MTP joint

Tophi and gouty arthritis. Longitudinal US scan at dorsal side of 1st MTP joint showed a heterogeneous hyperechoic mass (tophi, arrowheads) within joint capsule, with hypoechoic rim. MT: metatarsal head, P: proximal phalanx.

Foot



Crystal-related Gouty Arthritis (3rd day)

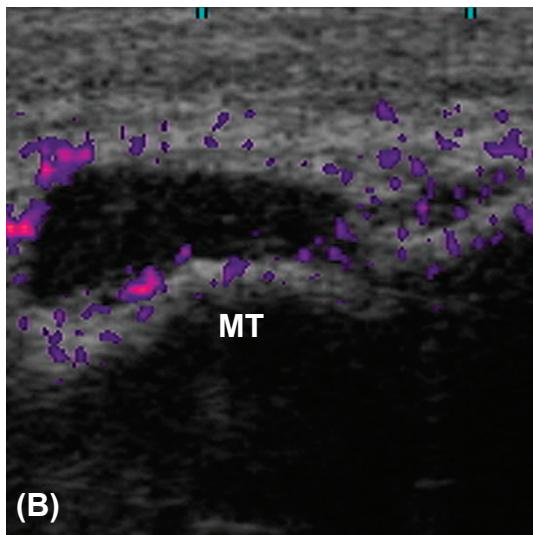
Dorsal Longitudinal scan

(A) and Power Doppler image of 1st MTP(B).

(A) Widening of joint cavity (arrows) with synovial thickening (*).

(B) PDUS shows scarce intrasynovial Doppler signals.

MT = metatarsus

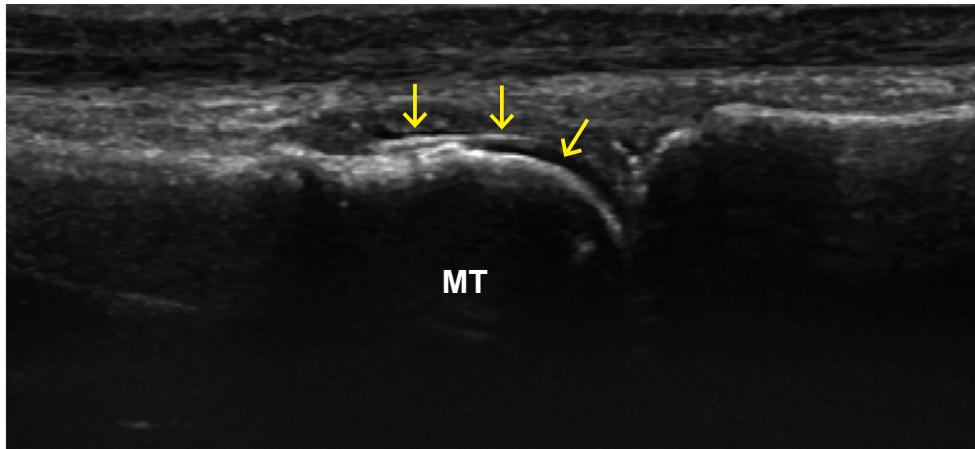


Chen, Hsin-Hua

Grey scale and power Doppler US using a Logiq 500 (General Electrics Medical Systems, Milwaukee, WI) with a linear probe (7-12MHz).

Foot

Crystal-related



Lai, Kuo-Lung

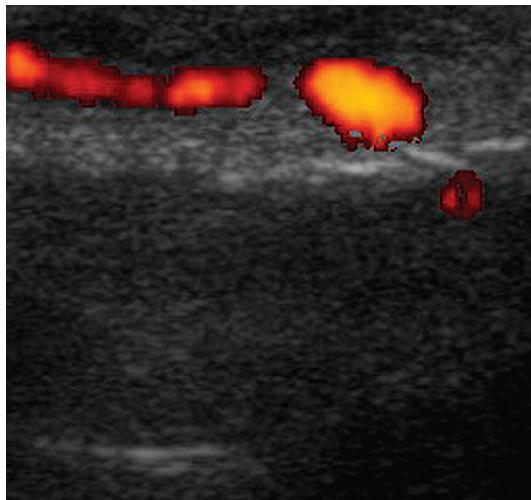
Gray scale US using a GE E9 (General Electrics) with a linear probe (15MHz)

Gouty arthritis

Longitudinal scan of first MTP joint

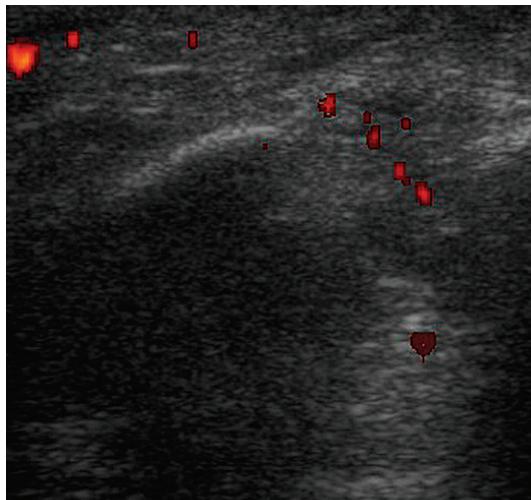
Gouty arthritis. Longitudinal US scan at dorsal side of 1st MTP joint showed a hyperechoic band on the surface of cartilage and was parallel to the bone cortex, named double contour sign (arrows). This sign is specific to gout. MT: metatarsal head, P: proximal phalanx.

Foot



Chen, Ying-Chou

Power Doppler Ultrasonography using CGM OPUS 5000



Chen, Ying-Chou

Power Doppler Ultrasonography using CGM OPUS 5000

Other Diseases

Dermatomyositis

Longitudinal scan of 1st metatarsalphalangeal joint

Confluent vessel Powder Doppler signals at right metatarsalphalangeal joint

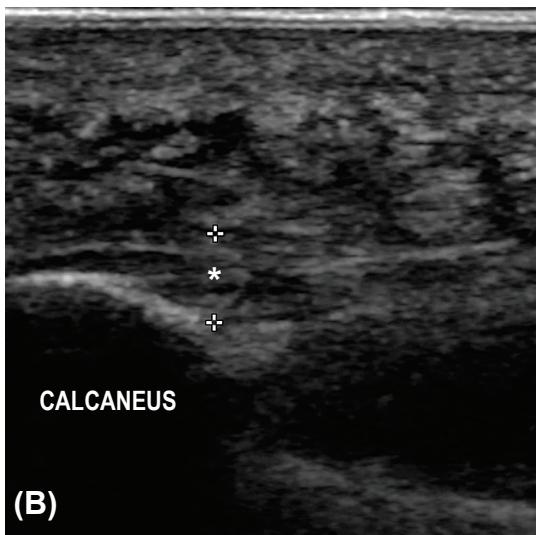
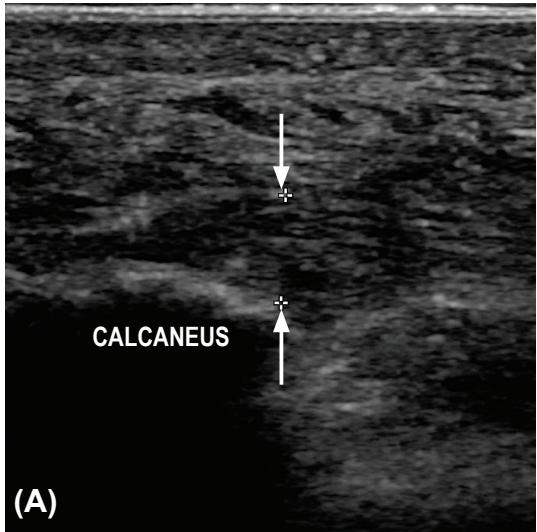
Other Diseases

Dermatomyositis

Longitudinal scan of right dorsal foot using 7.5 MHz transducer

Confluent vessel Powder Doppler signals at right metatarsalphalangeal joint

Foot



Other Diseases

Plantar Fasciitis

Plantar longitudinal scan over left plantar facial (A) and right plantar heel (B).

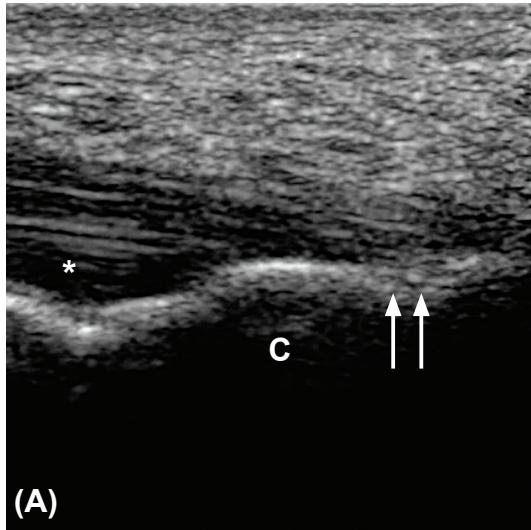
Swelling of left plantar fascia (arrows, 0.604cm) near calcaneus insertion site (arrows) was demonstrated with focal probe pressure tenderness. (A)

The asymptomatic contralateral plantar fascia (*) was thinner than the symptomatic one. (0.419 cm) (B).

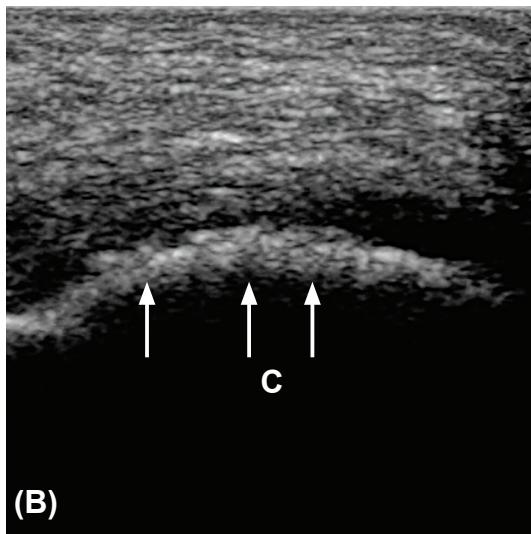
Chen, Hsin-Hua

Grey scale US using a Philip iU22 with a volumetric probe (4D, 5-13MHz)

Foot



(A)



(B)

Other Diseases

Seronegative Arthropathy and Enthesopathy(SAE)

Dorsal longitudinal scan (A) and transverse scan of heel (B).

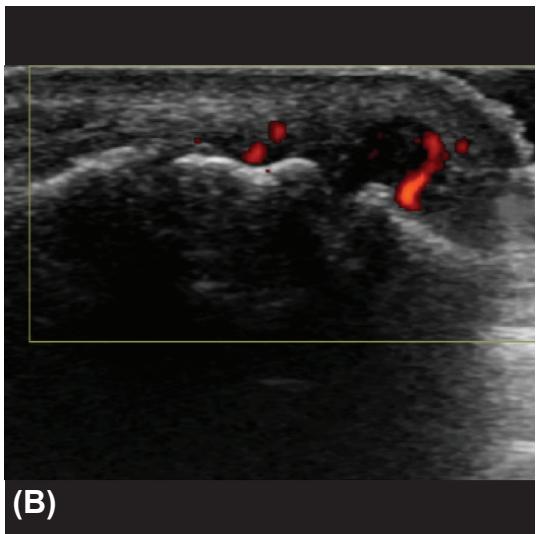
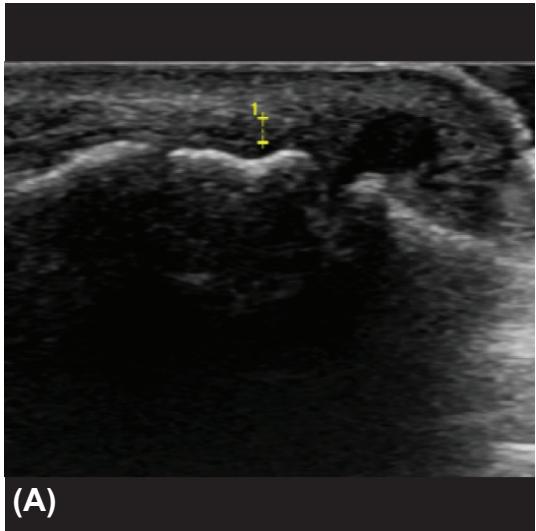
Note a focal bony irregularity on the distal end of Achilles tendon (arrows) with longitudinal (A) and transverse (B) scans, and another focal hypoechoic region (*) with a mild focal bony erosion beneath it, which might be related to tendinopathy.

C = calcaneus

Chen, Hsin-Hua

Grey scale US using a Philip iU22 with a linear probe (7-15 MHz)

Foot



Other Diseases

Psoriatic arthritis

Longitudinal scan of toe DIP joint

Psoriatic arthritis and enthesitis. (A) Longitudinal US scan of right 4th toe DIP joint showed thickening of the extensor digitorum tendon (mark 1) and synovial hypertrophy with joint capsule distension (B) On power Doppler US, presence of vascularity at the synovium and the extensor digitorum tendon. PP: proximal phalanx, MP: middle phalanx, DP: distal phalanx.

Lai, Kuo-Lung

Gray scale and power Doppler US using a GE E9 (General Electrics) with a linear probe (18MHz)