SIEMENS Healthineers

Club feet under weight-bearing

Multitom Rax Real3D[1] clinical case
Institute and Polyclinic for Diagnostic and Interventional Radiology, University Hospital Carl Gustav Carus, Technical University Dresden, Germany

[1] Option
Results from case studies are not predictive of results in other cases. Results in other cases may vary.

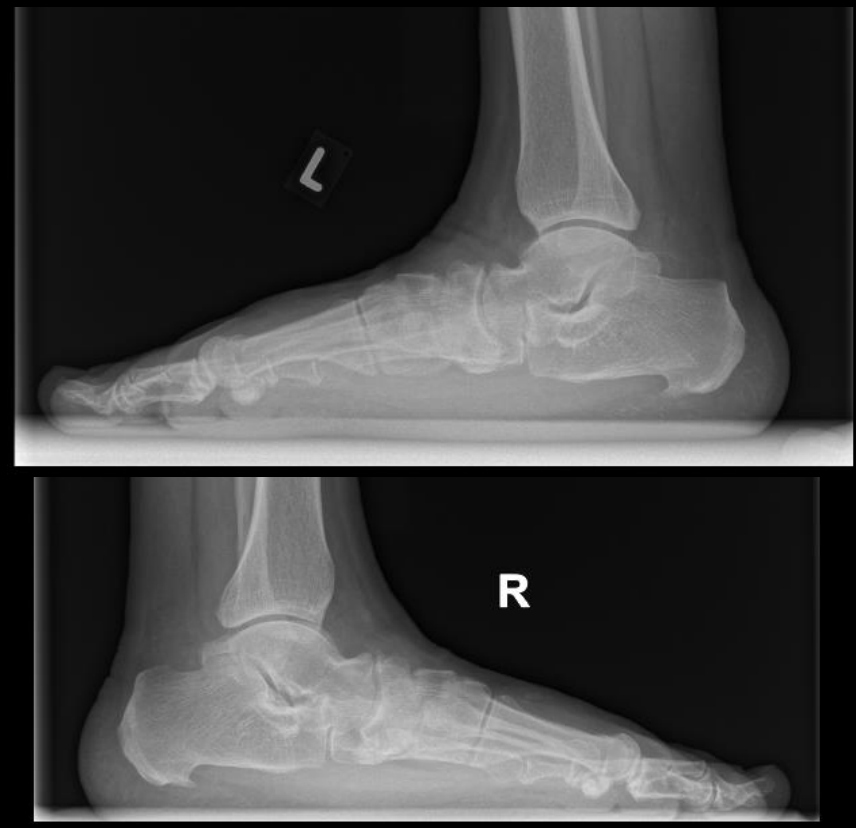
Clinical background and indication for Multitom Rax Real3D[1] examination

SIEMENS Healthineers

Patient
Male | *Age range* 40 - 50 years

Anamnesis
The patient suffers from pain in both feet for 7 years, on the right side even more severe than on the left. The patient was born with club feet which were treated conservatively. Pain is only noticed under stress and increases in the second half of the day. The pain free walking distance is 50 m.

Indication for Real3D[1] examination
3D imaging of both feet for evaluation of deformities under stress and surgical planning.



Conventional X-ray examinations

Study ID 5aac664

The products/features (mentioned herein) are not commercially available in all countries. Their future availability cannot be guaranteed.
[1] Option

Multitom Rax Real3D[1] Settings

Study ID 5aac193

Settings for two upright scans with High Quality Protocol (left and right foot)

Tube voltage	117 kV
Current time product	608 mAs *(sum of both scans)*
Dose area product	2430 µGy·m² *(sum of both scans)*
Calculated value for $CTDI_{vol,32}$	19.4 mGy *(sum of both scans)*
Scan time	16 sec *(for one scan)*
Number of projections	314 *(for one scan)*

Reconstruction settings for sectional views

Pixel size	0.4 mm
Reconstruction kernel	sharp (equivalent to Br69)
Slice thickness	0.5 mm

The products/features (mentioned herein) are not commercially available in all countries. Their future availability cannot be guaranteed.

[1] Option

Multitom Rax Real3D[1]
Diagnostic findings

Pes planovalgus on both feet with distinct valgus-deformity of the calcaneus.
Subluxation in the talonavicular joint.
Mild arthrosis in the right lower ankle joint.
Flat longitudinal arc of both feet.

For treatment a calcaneus-osteotomy with bone graft was done, incl. correcting arthrodesis in the medial Lisfranc-joint and resection of the osteophytes on the talonavicular joint.

Axial view of the left foot

Sagittal view of the left foot

Axial view of the right foot

Sagittal view of the right foot

Study ID 5aac193

The products/features (mentioned herein) are not commercially available in all countries. Their future availability cannot be guaranteed.
[1] Option

“For questions regarding the bone the cross-sectional view acquired by Multitom Rax generates high quality, diagnostic images on par with traditional tomographic datasets with less radiation dose. The access to cross sectional imaging in a standing position opens new diagnostic information and therefore better understanding of the underlying pathology. ”[1]

Eric Langer, MD
University Hospital Carl Gustav Carus, Technical University Dresden, Germany

[1] The statements by Siemens Healthineers customers described herein are based on results that were achieved in the customer’s unique setting. Since there is no “typical“ hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.

The products/features (mentioned herein) are not commercially available in all countries. Their future availability cannot be guaranteed.

Results from case studies are not predictive of results in other cases. Results in other cases may vary.

Dr. Eric Langer is employed by an institution that receives financial support from Siemens Healthineers for collaborations.