SIEMENS Healthineers

Weight-bearing ankle arthritis

Multitom Rax Real3D[1] clinical case
Artemed Hospital Munich, 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* 60 - 70 years | *BMI range* 20 - 25 kg/m²

Anamnesis

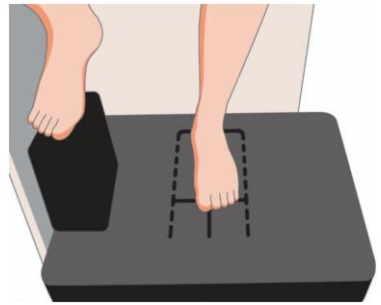
Already known severe ankle joint arthrosis on the right foot (Grade 4).

Indication for Real3D[1] examination

Preoperative planning before ankle joint prosthesis.

Real3D was chosen as the method for the preoperative examinations before ankle prosthesis implantation because the ankle joint can be examined in a natural, weight-loaded position.

Two options to position the patient



Let the patient lift the other foot in order to take it out of the field of view.

If a natural weight-bearing scan is required, let the patient place the second foot close to the other foot.

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 5aad579

Settings for upright scan with Standard Protocol

Tube voltage	117 kV
Dose area product	659 µGy·m²
Calculated value for $CTDI_{vol,32}$	5.3 mGy
Scan time	16 sec
Number of projections	434

Reconstruction settings for sectional views

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

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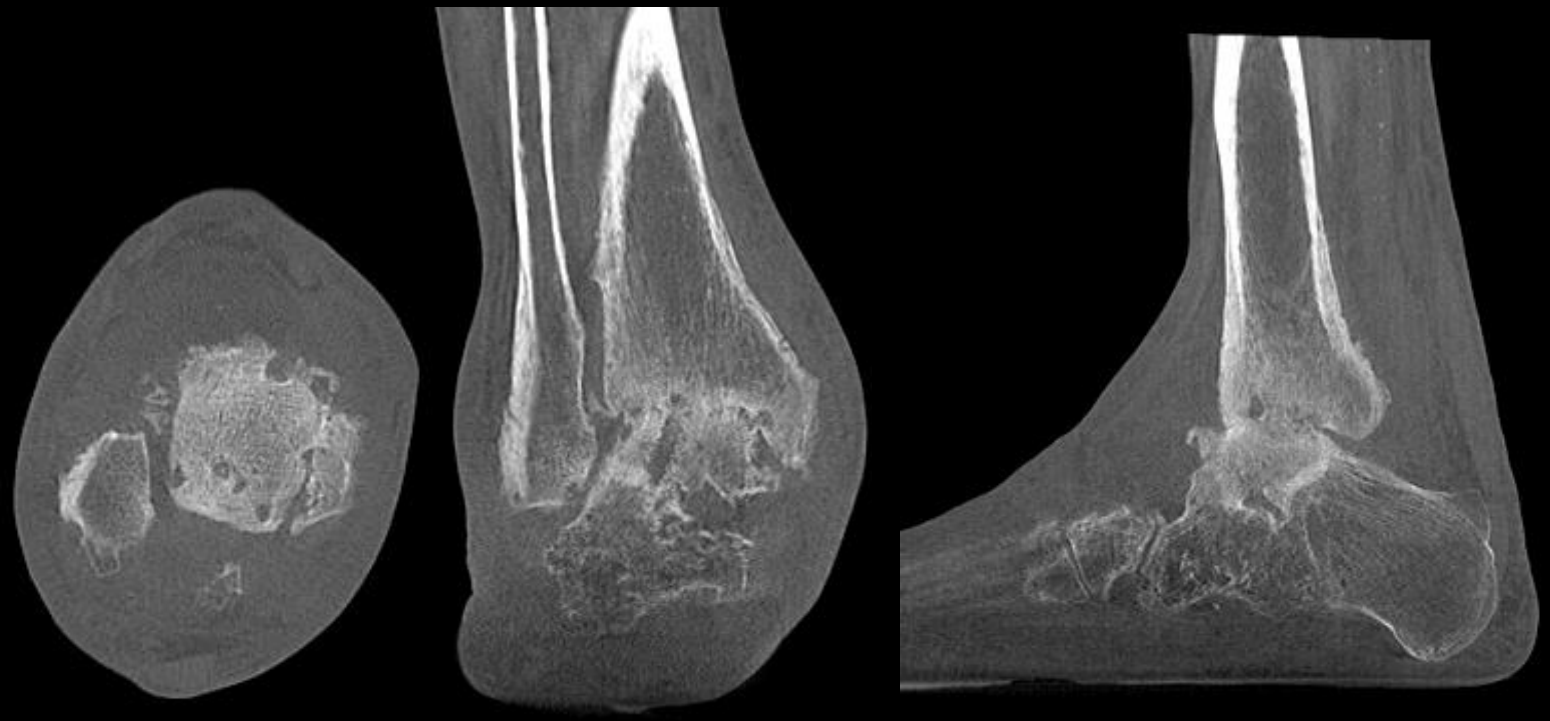
[1] Option

Multitom Rax Real3D[1]
Diagnostic findings

The already known osteoarthritis of the ankle can be seen in all views.
The valgus arthrosis with extensive osteophytes is clearly visible.
Furthermore, extensive cyst formations can be seen in the tibia and in the talus.
The patient was informed about the possibility of implanting an ankle prosthesis in our center and was operated on shortly thereafter.



Axial view *Coronal view* *Sagittal view*

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“The examination of the ankle joint under weight-bearing shows us an exact alignment of the osseous structures involved in the joint, which allows even more precise prosthesis planning.”[1]

Amir Bigdeli, MD
Artemed Hospital Munich, 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.

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