SIEMENS Healthineers

High-resolution imaging of the jaw

Multitom Rax Real3D[1] clinical case
Trauma Center BGU-Murnau, Germany

Study ID 5aag188

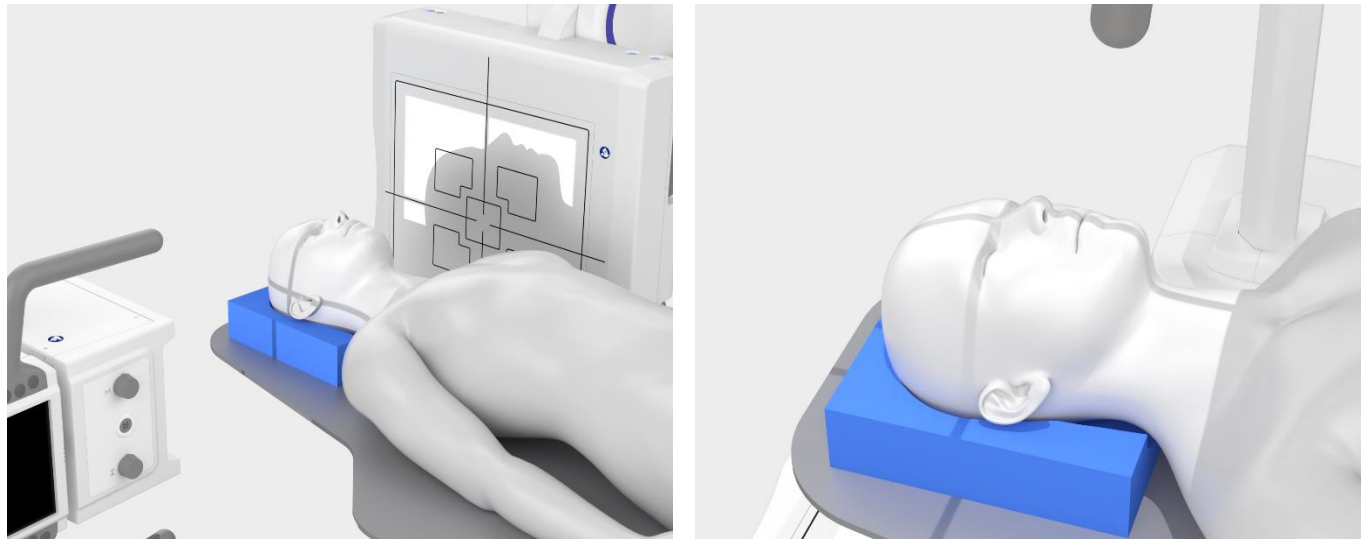
The products/features mentioned herein are not commercially available in all countries. Their future availability cannot be guaranteed.
Results from case studies are not predictive of results in other cases. Results in other cases may vary.
[1] Option

Clinical background and indication for Multitom Rax Real3D[1]

Patient
Male | *Age* 60-70 years | *BMI* 20-25 kg/m²

Anamnesis
Suspicion of chronic osteomyelitis of the lower jaw following a dental root abscess in region 33. Postbiotic imaging was performed.

Indication for Real3D[1] examination
To rule out a perioperative fracture post-biopsy and to image the extent of osseous changes due to chronic infection.



Check if the region of interest is positioned in the light field.
Adapt collimation and adjust table height if necessary.
Instruct the patient to avoid any movement.

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Multitom Rax Real3D[1] Settings

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Settings for a scan around the table using Standard Protocol

Tube voltage	101 kV
Current time product	213 mAs
Dose area product	540 µGy·m²
Calculated value for $CTDI_{vol,16}$	10.8 mGy
Calculated value for $CTDI_{vol,32}$	6.4 mGy
Scan time	16 sec
Number of projections	434

Reconstruction settings for sectional views

Pixel size	0.35 mm
Reconstruction kernel	sharp
Slice thickness	0.35 mm

Multitom Rax Real3D[1] Diagnostic findings

The acquired 0.35 mm high-resolution images clearly demonstrate the extent of bony reaction due to osteomyelitis of the mandible.

Two tubular post-biopsy defects are distinctly visible in the reformations, and a perioperative fracture can be ruled out.

The 3D reconstructions, which have an anatomic-like appearance, are highly acceptable to the clinicians.

Axial view

Coronal view

VRT
(volume rendering technique)

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“Multitom Rax provides high-resolution imaging of bony structures to rule out subtle fractures and to create highly acceptable 3D reconstructions.”[1]

Dr. Michael Scherr
Trauma Center BGU-Murnau, 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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Real3D is an option.

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