SIEMENS Healthineers

Scaphoid fracture

Multitom Rax Real3D[1] Hi-Res clinical case
University Hospital Wuerzburg, Germany

Study ID 5aab558

Image reprocessed on *syngo.*via with cinematic VRT.
Cinematic VRT is recommended for communication, education, and publication purposes and not intended for diagnostic reading.

[1] Option

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

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Patient
Male |*1983 | BMI 26.9 kg/m²

Anamnesis
Fall on the dorsally outstretched hand during construction work two weeks earlier. Patient reports persistent pain over the radial side of the carpus.

Indication for Real3D[1] examination
Anterior-posterior and lateral radiographs, as well as dedicated scaphoid view fail to display any fracture-related findings.

Scaphoid view

AP

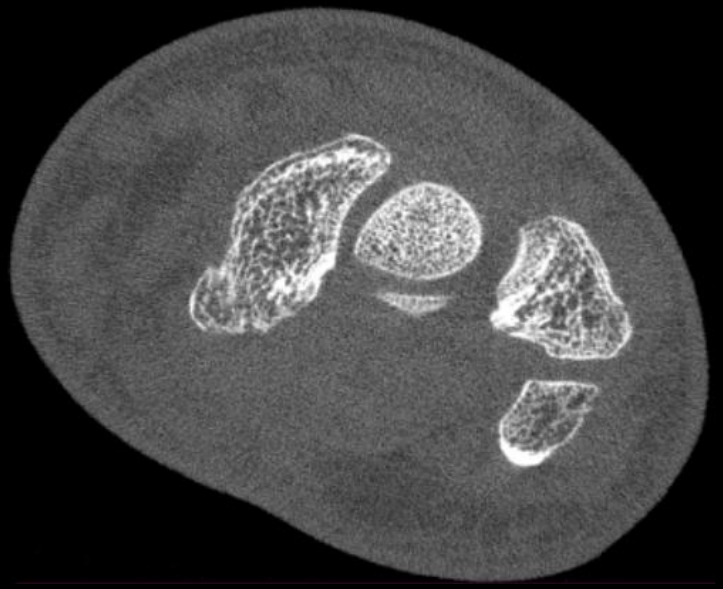
Lateral

Conventional X-ray examinations

Study ID 5aab936

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

Multitom Rax Real3D[1] Hi-Res Settings



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Settings for tableside scan with High Quality Protocol

Tube voltage	80.7 kV
Current time product	792 mAs
Dose area product	550 µGy·m²
Calculated value for $CTDI_{vol,32}$	7.5 mGy
Scan time	14 sec
Number of projections	318

Reconstruction settings for sectional views

Pixel size	0.2 mm
Reconstruction kernel	very sharp (equivalent to UR77)
Slice thickness	2 mm

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Multitom Rax Real3D[1] Hi-Res
Diagnostic findings

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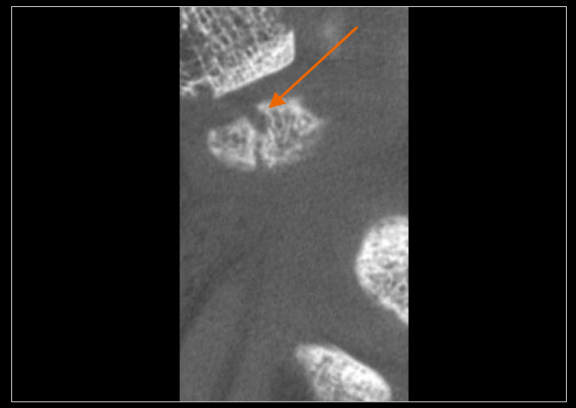
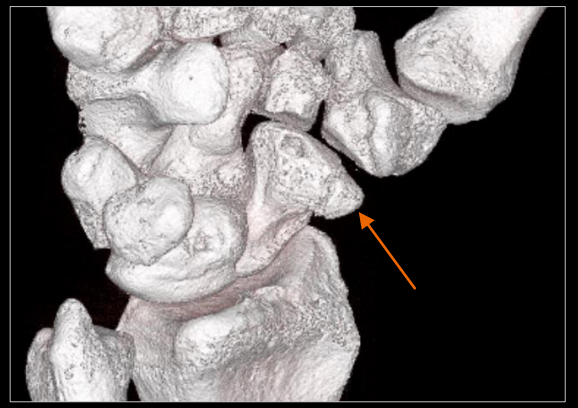
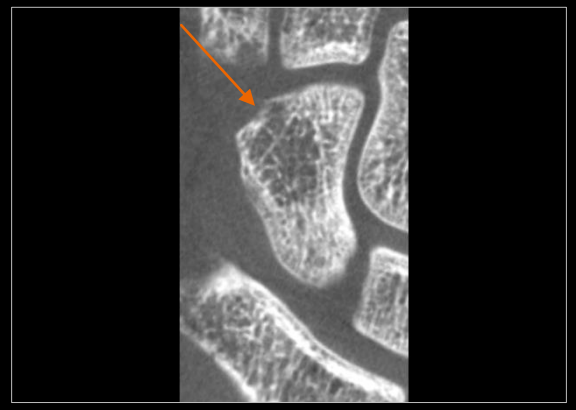
Reformatting of Real3D[1] Hi-Res data with respect to the long axis of the scaphoid reveals a subtle, non-displaced fracture of the scaphoid's tubercle.
Tubercle fractures of the scaphoid are usually stable (unlike waist fractures) and do not require surgical treatment. Cast immobilization for six weeks and subsequent physical therapy was recommended. Radiological and clinical follow-up was satisfactory showing good fracture healing.





VRT view



Zoom into coronal views of different slices

Coronal view

Study ID Saab558

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*"**Image contrast** of Real3D Hi-Res is **excellent in bone tissue**. Trabeculae and fatty marrow can easily be distinguished. Therefore, fracture detection is simple, even in the presence of non-displaced fissures. Displaced and non-displaced fragments can easily be detected."*[1]

Jan-Peter Grunz, MD
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[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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Results from case studies are not predictive of results in other cases. Results in other cases may vary.

Dr. Jan-Peter Grunz is employed by an institution that receives financial support from Siemens Healthineers for collaborations.