SIEMENS Healthineers

Pediatric radius head fracture

Multitom Rax Real3D[1] clinical case
Children's and Youth Hospital "Auf der Bult“ Hannover

Study ID 5aad369

[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

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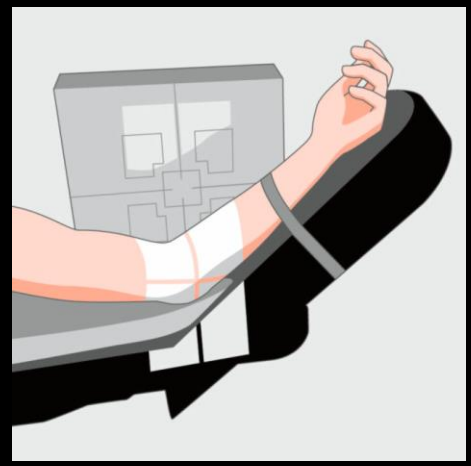
Patient
Male | *Age range* 10 - 15 years

Anamnesis
Patient jumped on the trampoline and fell poorly. Significant pain in the proximal forearm. Unclear position of the fracture on conventional X-ray examination.

Indication for Real3D[1] examination
Better assessment of the fragment position for classification needed.

AP and lateral view
Conventional X-ray examination



Position the patient with head first for left elbow.

Fixate the arm of the patient.

The elbow must be covered by the light field.

Adapt lateral collimation and adjust table height if necessary.

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

Settings for tableside scan with Standard Protocol

Tube voltage	81 kV
Current time product	157 mAs
Dose area product	113.7 µGy·m²
Calculated value for $CTDI_{vol,32}$	1.6 mGy
Scan time	12 sec
Number of projections	314

Reconstruction settings for sectional views

Pixel size	0.4 mm
Reconstruction kernel	sharp (equivalent to Br69)
Slice thickness	2 mm

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Multitom Rax Real3D[1] Diagnostic findings

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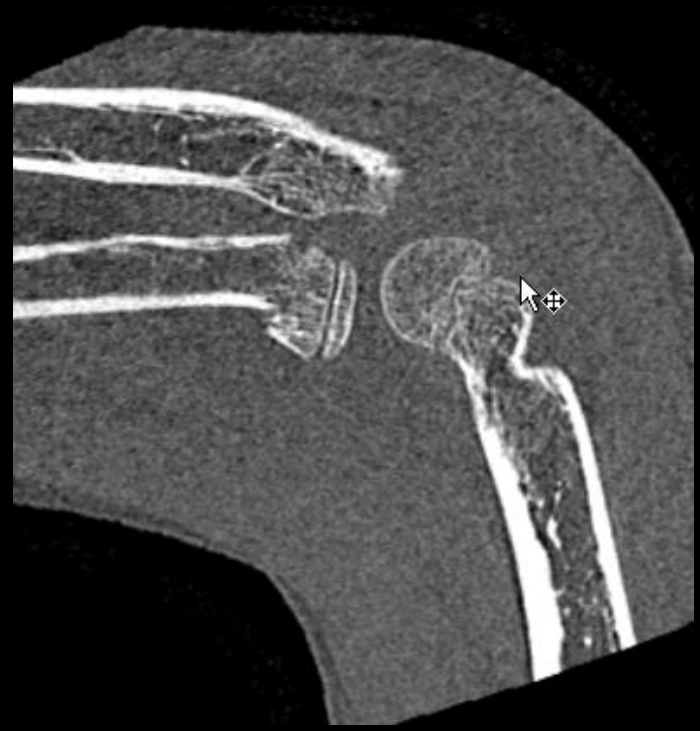
Assessment and position of radius head fracture on Real3D views possible.

Further treatment and therapy for patient with physical rest and immobilization of the affected extremity and an X-ray control of the position in the course.

Real3D sagittal view on 2 mm slice thickness



Real3D sagittal view on 0.5 mm slice thickness

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[1] Option

“Image contrast and spatial resolution in normal scan mode of Real3D are comparable to conventional multidetector CT examinations. Bony structures and fragments are detectable and assessable.”[1]

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