QAngio® XA 3D 1.1 with QFR®, product specification sheet

A Medis® Suite XA App

Product Specification Sheet

The accurate 3D QCA reconstruction offered by QAngio XA 3D is the backbone for subsequent analyses, such as the physiologic assessment (QFR) of coronary obstructions. QAngio XA 3D is the analytical software solution for the reconstruction of a coronary artery from two X-ray angiographic projections at least 25 degrees apart, either from a biplane acquisition or from two monoplane acquisitions, and the subsequent QCA analysis of clinically relevant parameters of coronary obstructions.

Data import and DICOM connectivity by Medis Suite XA

- Data repository
- Patient selection browser
- From any storage media (Hard disk, USB disk, CD/DVD, network share)
- Directly from either PACS or X-ray angiographic systems
- Automatic series loading into the application
- Works with DICOM images from all major imaging vendors

Viewing

- Full 2D angiography DICOM viewer
- 2D and 3D viewing of (arterial and reference) vessels and lesions
- Marker synchronization between 3D QCA diameter- and QFR “pull-back” graphs vs. 2D and 3D angiographic views
- ECG display and synchronization with 2D angiographic views

3D QCA analysis workflow

- Is based on isocenter calibration
- Efficient angiographic series selection by presentation of applicable pre-acquired angiographic views (> 25° apart)
- Efficient acquisition guido to suggest optimal viewing angles for the next acquisition in online situations
- Automated optimal viewing angles calculation
- Offset correction
- Automated 2D arterial (luminal) contour segmentation based on the proven Medis 2D QCA
- Automated 3D reconstruction of the arterial contours
- Automated 2D and 3D reconstruction of reference contours
- Automated 3D lesion quantification
- Lesion foreshortening calculation
- Wizard guide you step-by-step through the entire 3D reconstruction and QFR assessment process

3D QCA analysis results

- Lumen and plaque statistics:

- Severity of stenosis (diameter and area)
- Minimum lumen diameter (MLD)
- Proximal and distal minimum and maximum diameters (at P- and D-marker positions)
- Display of 3D reference volume along entire segment
- Lesion length
- Bending angle
- Five optimal views with minimum lesion foreshortening

QFR (Quantitative Flow Ratio) analysis results

- Physiology
- QFR values along entire analyzed vessel segment calculated from 3D QCA according to 3 different flow velocity models:
  - Fixed flow velocity: fixed flow QFR;
  - Basal flow without hyperemia using contrast frame count: basal QFR;
  - Adenosine-induced maximum hyperemia using contrast frame count: hyperemic QFR.
- Three different QFR indices along the analyzed coronary segment: Vessel QFR, Index QFR, Lesion QFR
- QFR "pull-back" curve along coronary segment for visual identification of pressure drops

Reporting and Data export

- All analysis results including the 3D reconstruction data and the QFR data can be saved and reloaded again for reviewing and/or exporting;
- Quantification results can be exported as a graphical report in PDF, and DICOM PDF, or Secondary Capture, or XML format. Results can also be copied to the clipboard in textual format.
- Screenshots can be included in the report, exported to local storage media, or can be copied to the clipboard.

QFR is delivered by Medis in a strategic collaboration with Shanghai Jiao Tong University and Pulse Medical Imaging Technology Co., Ltd. In Shanghai, China

QAngio XA 3D is cleared for market in Europe

QAngio XA 3D has not received US 510(k) market clearance and is not available for sale in the US. If you are located in the US and are interested in this package for scientific research purposes, please contact us-sales@medis.nl.

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Quality in Quantification