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Medical Imaging Ltd.

Life Saving Technology

COR-ANALYZER™

identification

classification

segmentation

Automatic

COR Analyzer-Fully Automated No Human Interaction Coronary CTA Analysis

- No human interaction for segmentation and tracking of coronary artery tree

- No human interaction for detecting stenotic lesions in the major coronary arteries

- High Negative Predictive Value

- The COR Analyzer accepts standard DICOM data sets acquired by all four 64 slice CT manufacturers

Automatic Coronary CTA Analysis

Upon receiving a Coronary CTA data set, the COR Analyzer processes it automatically, without any user interaction, yielding the following results:

- Overlay tagging of the coronary arteries and lesions on the axial slices

- 3D presentation of the coronary tree and the location of the suspected lesions
    – Different colors are automatically assigned to the four main coronary arteries-RCA, LAD, LM and LCX

- Pathologies Report

THE REPOSITORY SCREEN provides an overview of all cases in the database.* Studies can be sorted by time of "arrival", "positive" first, "negative" first or any other combination.

COR Analyzer II

Studies   Edit   Help

	Last Name	First Name	Patient ID	Study ID	Study Date	Series Description	Process Date	Status	Viewed	Suspected Deviations
❤	Patient 1	Patient 1	00000001	15230	Oct 30, 07, 12:01 PM	75.0%	Jan 10, 08, 1:13 PM	Processed	No	Yes
❤	Patient 2	Patient 2	00000002	15255	Oct 31, 07, 8:27 AM	75.0%	Jan 10, 08, 1:20 PM	Processed	No	Yes
❤	Patient 3	Patient 3	00000003	15258	Oct 31, 07, 9:19 AM	75.0%	Jan 10, 08, 1:28 PM	Processed	No	Yes
💚	Patient 4	Patient 4	00000004	15259	Oct 31, 07, 9:34 AM	75.0%	Jan 10, 08, 1:36 PM	Processed	No	No
❤	Patient 5	Patient 5	00000005	15266	Oct 31, 07, 12:44 PM	75.0%	Jan 10, 08, 1:44 PM	Processed	No	Yes
?	Patient 6	Patient 6	00000006	15358	Nov 04, 07, 12:15 PM	CARDIAC, 75.0%	Jan 10, 08, 1:50 PM	Processed	No	No
✗	Patient 7	Patient 7	00000007	15471	Nov 06, 07, 11:00 AM	75.0%	Feb 12, 08, 4:48 PM	Failed	No	Yes
❤	Patient 8	Patient 8	00000008	15472	Nov 06, 07, 11:21 AM	75.0%	Jan 10, 08, 2:06 PM	Processed	No	Yes
❤	Patient 9	Patient 9	00000009	15533	Nov 07, 07, 9:34 AM	75.0%	Jan 10, 08, 2:13 PM	Processed	No	Yes
❤	Patient 10	Patient 10	00000010	15583	Nov 08, 07, 10:37 AM	75.0%	Jan 10, 08, 2:21 PM	Processed	No	Yes
❤	Patient 11	Patient 11	00000011	15689	Nov 12, 07, 8:53 AM	75.0%	Jan 10, 08, 2:32 PM	Processed	No	Yes
💚	Patient 12	Patient 12	00000012	15691	Nov 12, 07, 10:20 AM	75.0%	Jan 10, 08, 2:41 PM	Processed	No	No
❤	Patient 13	Patient 13	00000013	15725	Nov 13, 07, 8:28 AM	75.0%	Jan 10, 08, 2:57 PM	Processed	No	Yes
⌛	Patient 14	Patient 14	00000014	15732	Nov 13, 07, 9:24 AM	75.0%	-	Pending	No	-

☐ Anonymize
☐ Auto Import and Process

[View Study]   [Process Study(s)]   [Report]   Free disk space = 26.5% (20.7 GB)

Auto Import Mode
Automatically imports and processes any Coronary CTA study

View Study
View the actual slices and a 3D representation of the coronary arteries with marked pathologies

Process Studies
Allows the physician to select which cases to import and process by highlighting the relevant case/cases and clicking the Process Study(s) button

Report
For each processed case the physician can view a detailed report

Suspected Deviations
Immediate indication of a patient who might have Coronary Artery Disease

⌛ Pending studies
💚 No severe pathologies detected
❤ Severe pathologies detected
? No severe pathologies detected, potential failure in automatic analysis
✗ Failure in automatic analysis

* Patient names and IDs are fictitious for demonstration purposes only.

COR ANALYZER Advantages

Emergency Department

Improving patient triage for further diagnostic work-up and treatment

- Reducing time to treatment, improving mortality rate

- Reducing need for invasive diagnostic procedures, improving morbidity rate

- Reducing unnecessary hospital admissions, saving money to hospitals

- Reducing unnecessary emergency calls to expert readers, reducing staffing need

Radiology and Cardiology Departments

- Prioritization - fast work-up of patients with high probability of coronary artery disease

- Second look - computerized second review of Coronary CTA studies

Computerized Decision Support Technology for Coronary CTA

Adds advanced diagnosis functionality to existing Coronary CTA software tools

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THE VIEW STUDY SCREEN presents overlay tagging of coronary arteries and suspected lesions on four synchronized views - axial, coronal, sagittal as well as 3D rendering of the coronary arteries tree.
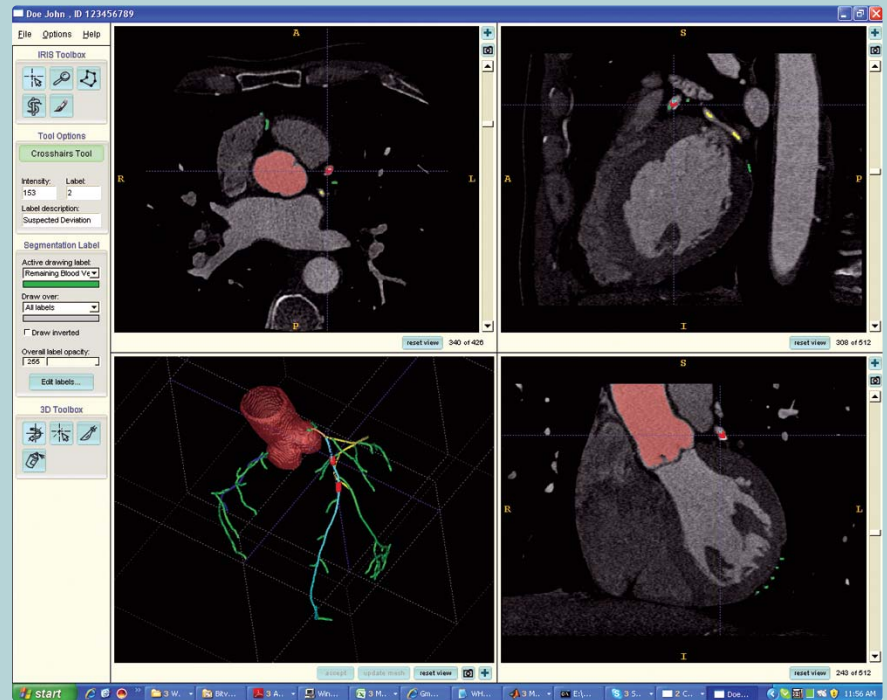
THE REPORT SCREEN indicates presence of significant lesions per patient in each one of the ten coronary segments. The system also indicates potential failures in its automatic analysis:
- Discontinuity - tracking stopped due to image discontinuity
- Insufficient RCA/LCX Coverage - the RCA/LCX pair does not cover well the AV groove
- Other potential tracking failures due to motion artifacts, blur, low contrast, vessel occlusion

Suspected Deviations Report

Print   Save to CD   Help

Patient Name: PEDRO RODRIGUEZ
Patient ID #:   SWMR000000039793
Age: 63
Gender: M

Study ID: 444
Study date: Oct 01, 07, 9:47 AM
Process date: Dec 25, 07, 6:04 PM

Last viewed by:

Findings:

RCA Proximal	No deviations detected	
RCA Medial	No deviations detected	Visual inspection required
RCA Distal	No deviations detected	
Left Main	No deviations detected	
LAD Proximal	No deviations detected	
LAD Medial	No deviations detected	
LAD Distal	No deviations detected	
LCX Proximal	No deviations detected	
LCX Medial	No deviations detected	
LCX Distal	No deviations detected	Visual inspection required - Insufficient RCA/LCX Coverage

Anonymize   Last Viewed By   Close

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