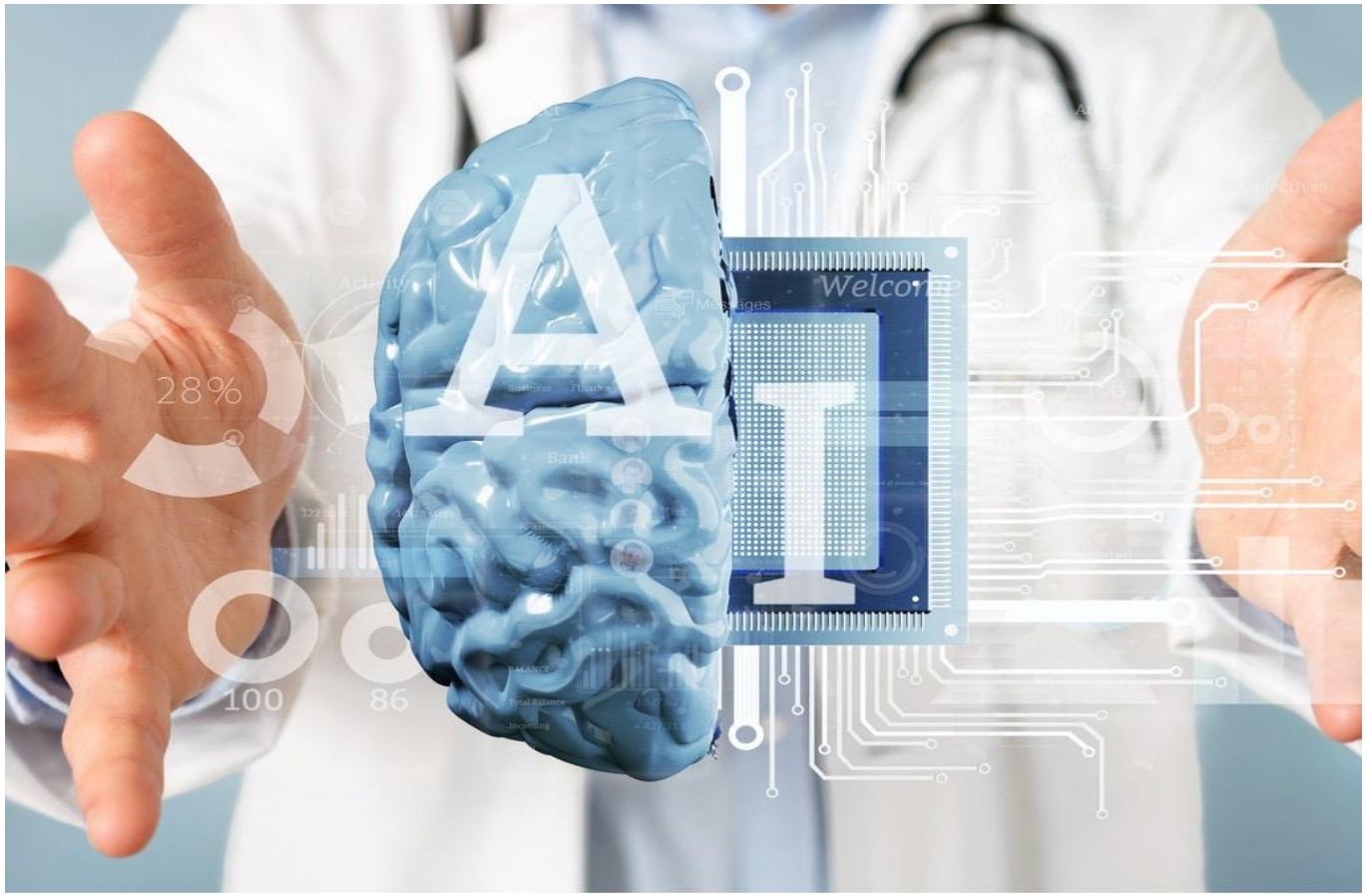
AIkenist

Gen-AI end-to-end Imaging Platform & Radiology solutions



Medical Imaging. Faster. Affordable. Convenient.

Steady Progress: 300 installations +

- ✓ 300+ installations, Fast growing hi-tech solution provider
- ✓ 100% SaaS based solutions - no upfront h/w Inv
- ✓ Subscription / PPU based flexible pricing
- ✓ Customers: Radiology Centers, Med Device companies, Pharma

CUSTOMERS

Global TeleRadiology · KONNECT DIAGNOSTICS · PRIMA DIAGNOSTICS · BeiGene · NewMedd Diagnostics · Primescan Imaging · ISHA DIAGNOSTICS · HLL Lifecare Limited (A Government of India Enterprise) · SGVP HOLISTIC HOSPITAL · Manipal HealthMap · SGVP HOLISTIC HOSPITAL · CEREBRIU · MALLA REDDY INSTITUTE OF MEDICAL SCIENCES

2019

Founded by serial entrepreneurs

2021

Partners: Nvidia, Google, AWS, GE, Microsoft

2022

Generative AI based Platform

2023

ISO13485 Cert, 100 installations

Scope & Geo expansion

RESEARCH PARTNERS

JSS HOSPITAL IN SERVICE TO LIFE · Agency for Science, Technology and Research SINGAPORE · MAHAJAN IMAGING · voxelgrids · Massachusetts General Hospital Founding Member, Mass General Brigham

Aikenist Is supported by Advisors from GE, Tata, Siemens and Stanford

Team: Experienced in Deep Tech Business

ASHWIN AMARAPUR

Founder, CEO
IISc, Ex- Motorola, NXP .
Exit with AllGo Embed, Ex CEO AllGovision
Serial Entrepreneur

RAVINDRA G H

System Architect
Ex- CGI 25+ yrs experience

DR. MUTHU MAGESH

Advisor - Lead Radiologist

SANJEEV S

Advisor
Business Leader

ANUJ BATRA

Business Advisor
CXO in top firms

CORE TEAM

AI-Engineers, Research Scholars

SACHIN SHEKHAR

Director – Partnership & Growth
Ex- Subex, Angel Investor,
Serial Entrepreneur

VENKATESH SHARMA

Director
Ex Uber, NetApp

AIkenist

Setting the context : Slow Radiology Process

Cumbersome Patient Mgmt

- Long queue times at peak
- Underutilized machines with uneven loads
- Unpredictable wait time

Inconvenient Scanning Process

- Claustrophobic 30 m - 60 m MR scanning time
- High radiation exposure to CT

Slow Turn-Around Times

- Slow Radiologist Response time
- Delay in reports to Patients and Physicians

Appointment to Treatment takes Days causing major bottleneck in adoption and sub-optimal ROI
Global problem. Canada//Europe: Up to 6 months wait time for MR, US: 6 weeks, India: high wait time for PPP

“QuickSuite” is a “Radiology OS”, an end-to-end stack

12h -> 3h

15 m -> 5 m

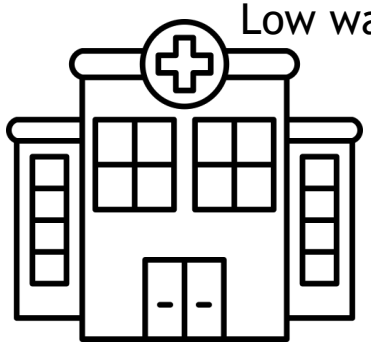
Total time: 18h -> 5h

1 QUICKFLOW
Optimal
Appointment
Low waiting time

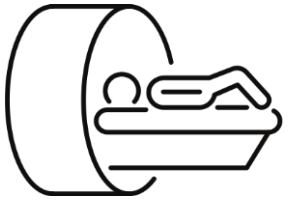
3 QUICKDIAG
Make reporting
faster using AI

Cloud & DC

Radiologist

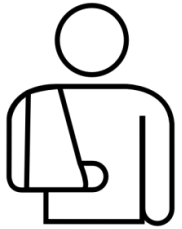


RADIOLOGY CENTER



SCANNER

Patient



Doctor

Quickscan - Patent granted
Gen AI for reconstruction
Gen AI for report synthesis
Medical grade viewer
AI, Cloud, Mobile, Enterprise
Plethora of innovations

2 QUICKSCAN
Make scanning faster, safer &
more accurate using AI
MRI: 2x Fast Scan
CT: Low Dose CT
70% better SNR

30 m -> 20 m

4 QUICKRAD
Smart Workflow,
Viewer, Sharing
AI PACS & RIS

6h -> 1h

Product details in Appendix

Quick Suite- Radiology OS

	Referral from Physician	Registration	Billing	Schedule the Appointment	Queue Management	Medical Imaging	Image Interpretation	Diagnosis	Report Making	Report Collection	Follow up
Service Journey											
Participants	Physician Patient	Administrative Staff Receptionist Patient			Administrative Staff	Technician Patient	Radiologist Technician	Radiologist	Radiologist Typist	Patient Other Radiologist Physician	
Painpoints		• Long wait times for appointments • Difficulty coordinating schedules • Administrative errors.			• Confusion about preparation instruction • Long waiting lines	• Claustrophobia during the scan • Discomfort from lying still • Lengthy scans	• Image Quality • Raw data processing	• Interpretation Challenges • Unavailability of Radiologist	• Delay in report making • Mundane jobs	• Physically present • Time consuming • Difficult report sharing	
Solutions		Ezheal			Quick Scan		Quick Rad	Quick Diag	Quick Rad	Ezheal	
Features		• Online/Offline Registration • Appointment Scheduling • Billing and Payment • Online Report Access • Presenting rates for various modalities with corresponding pricing structures.			• Reduces scan time by up to 30-40%. • Minimizes patient wait times. • Enhances image quality with the help of AI • Increased Revenue Potential.		• Dashboard to view patient details, modality, previous cases and other fields. • Multiple viewers with 3D viewing, measurement tools, video mode, contrast adjustment. • Mark cases for review, interesting, or emergency. • Store data (hot, cold, archive) • 3D volume rendering.	• Integrated with QuickRad • AI examination identifies abnormalities needing immediate Radiologist attention. • Abnormalities described in the Dashboard	• Templates for report creation. • Speech-to-text feature for easy dictation.	• Final reports available as PDF and DOC files. • Share reports via email, WhatsApp, SMS. • Access to their historical scans for better management.	
Supported Modules					• All Brain sequences • All sequences of Spine , Knee, Other parts • Abdomen, Pelvis sequences		• CT • MRI • PET • Ultra Sound • X Ray • Cardiology • Endoscopy • Pathology	• X-Ray Chest • X-Ray Bones • CT Chest • CT Brain • MRI Brain • MRI Spine			
Advantages		• Innovative & convenient custom plans • End to end customer management • Easy billing and payment •			• Better machine utilization • Patient queue management • Better Scanning Process		• Better coordination btw the Radiologist & technician & other doctors. • Better workflow and accountability. • Device Friendly. • Monitor Progress • Improved data monitoring and access summary statistics for enhanced oversight. • Unified Report making. • Zero foot print viewer. • Annotation and AI capabilities.	• Quantification for analysis • Improved Accuracy • Enhanced Decision Support • Optimized resource allocation		• Better customer management • East scan storage	

Waiting Point

AIkenist

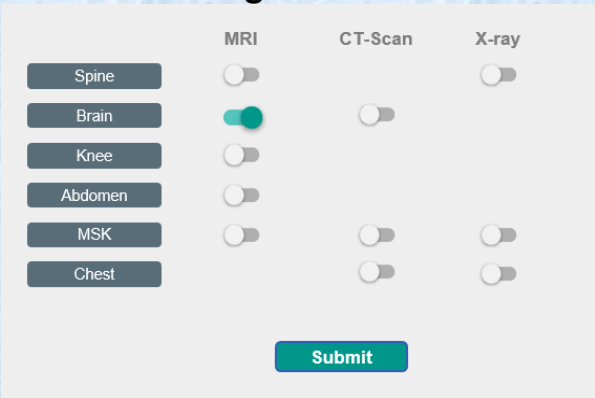
QuickFlow -“Shopify” Diagnostics

PATIENTS
(online/offline)

- ✓ Better Patient queue management
- ✓ Better Scanning Process
- ✓ Better machine utilization

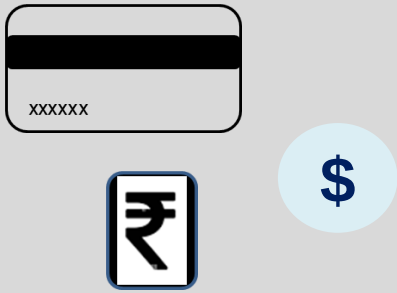
QUICKFLOW

1 Online/Offline booking with center specific catalogue

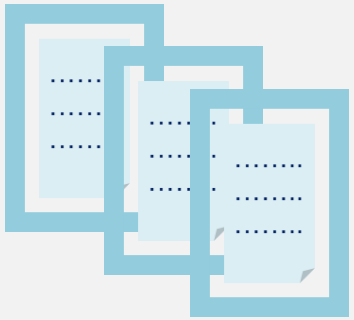


Innovative & convenient custom plans

2 Pay online and get walk-in slot



3 Fast scanning and quick report delivery



Radiological imaging based health metrics

QUICKSCAN QUICKRAD QUICKDIAG

Today'Cases	Today Pending Cases	Today Completed Cases	Today Emergency Cases
0	0	0	0

Add Booking

All Cases | Today's Cases | Pending Cases | Completed Cases | Emergency Cases | Online Cases

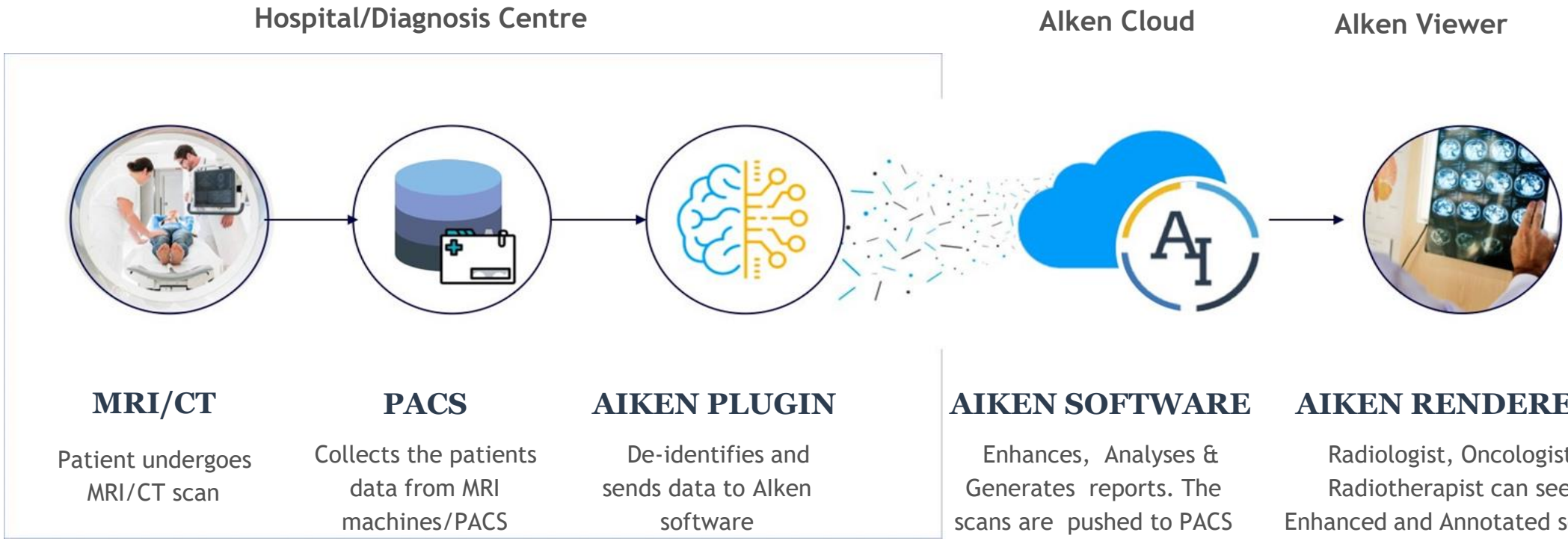
Select Columns to show

Select Date Range : Start date — End date

Export to File

No.	Booking Time	Case ID	Patient ID	Patient Details	Referring Physician	Appointment Date	Scans	Total Amount
1	11-09-2023 02:02:06	NMHM00000068 online	NMH000050	**Rachit Tiwari3 (M)** 01-01-1978 racccccc@yopmail.com 8686857647	**N/A**	13-09-2023 10:00	Home Visit Charges for 0-10 kms (Single Visit)	**₹ 160**
2	12-09-2023 15:05:15	NMHM00000069 offline	NMH000058	**Lab Order 3 (M)** 01-01-1998 9989898998	**N/A**	12-09-2023 16:00	CULTURE & SENSITIVITY - BLOOD,GLUCOMETER BLOOD GLUCOSE,PET-FDG-CREATININE	**₹ 3500**
3	06-09-2023 17:39:35	NMHM00000067 offline	NMH000057	**06_06_test1 (F)** 04-09-2023 06_06_test1@demo.com 6675545452	**Dr. Ramesh Kumar** 7275373652	06-09-2023 19:30	BRAIN & FACE,GLUCOMETER BLOOD GLUCOSE,CULTURE &	**₹ 13500**

QuickScan - Expedited scanning (2X)

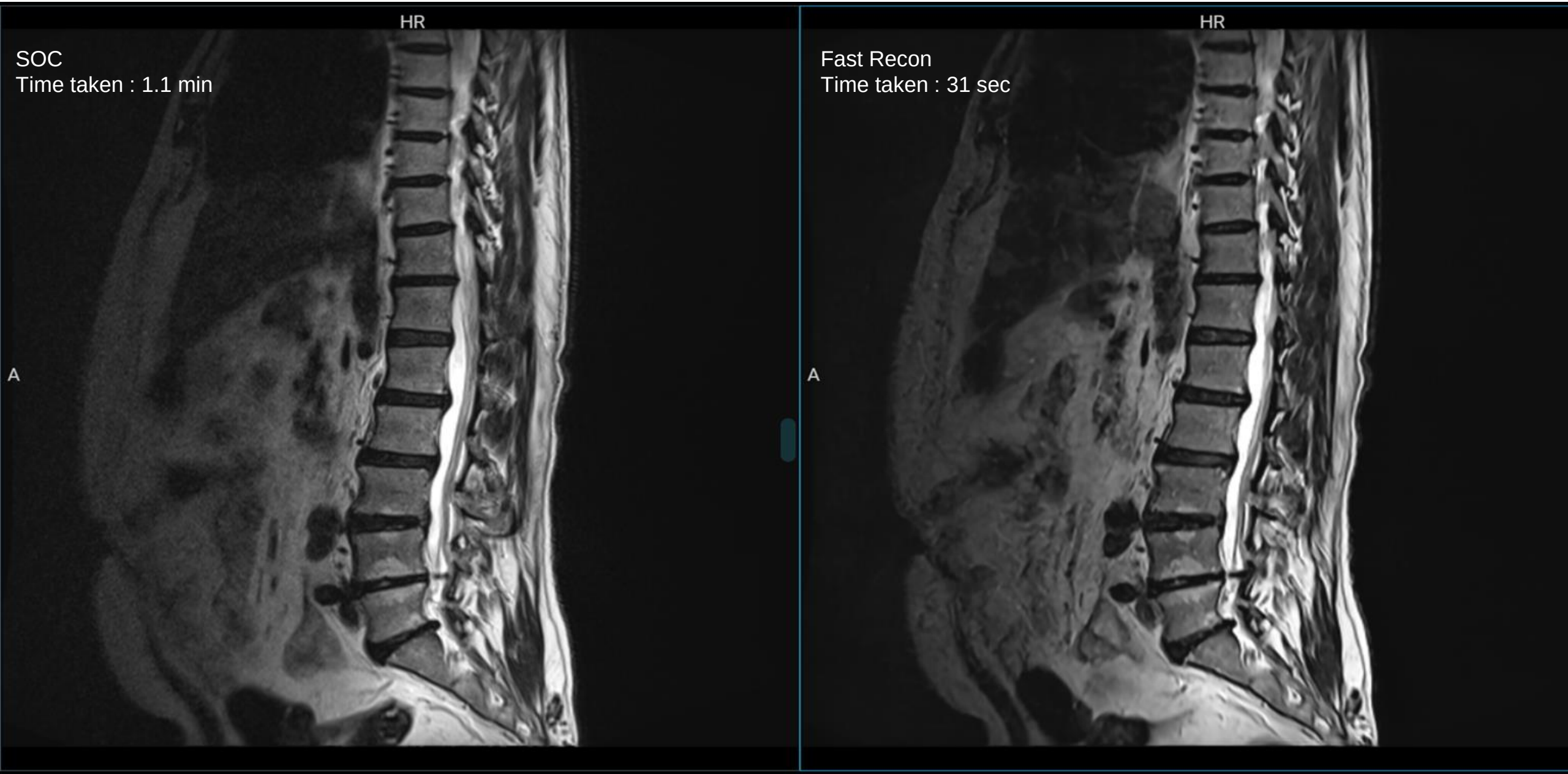


- ✓ Patent granted (# 409689)
- ✓ Deployed commercially in over **40 centres – scalable to millions of scans**
- ✓ 2X speed of normal scans with no change in accuracy ; HIPAA compliant:
- ✓ No Change in Radiologist workflow, No dependency on MR/CT Manufacturer

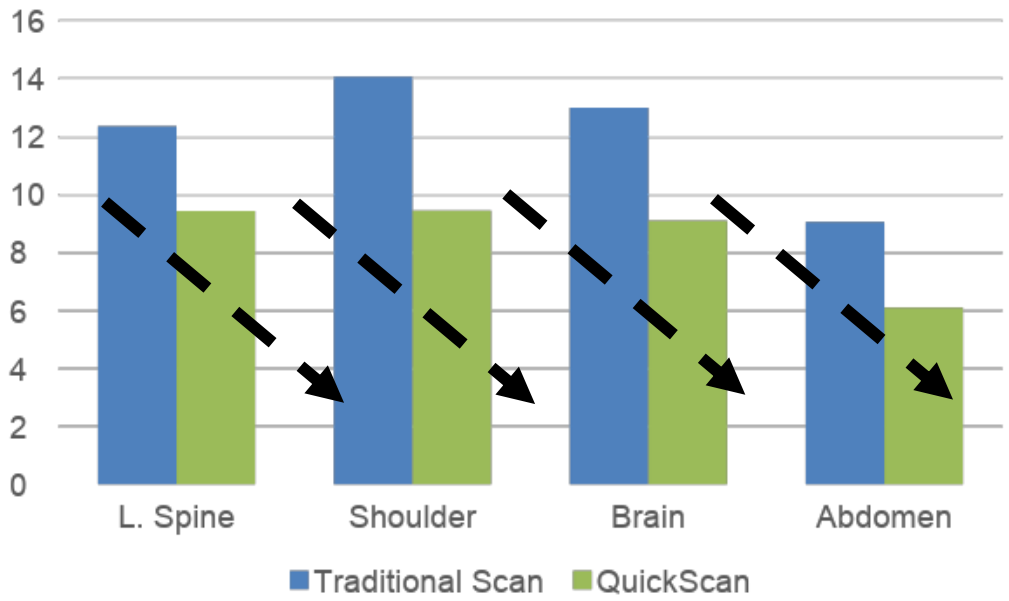
AIkenist

QuickScan Demo - 50% time reduction

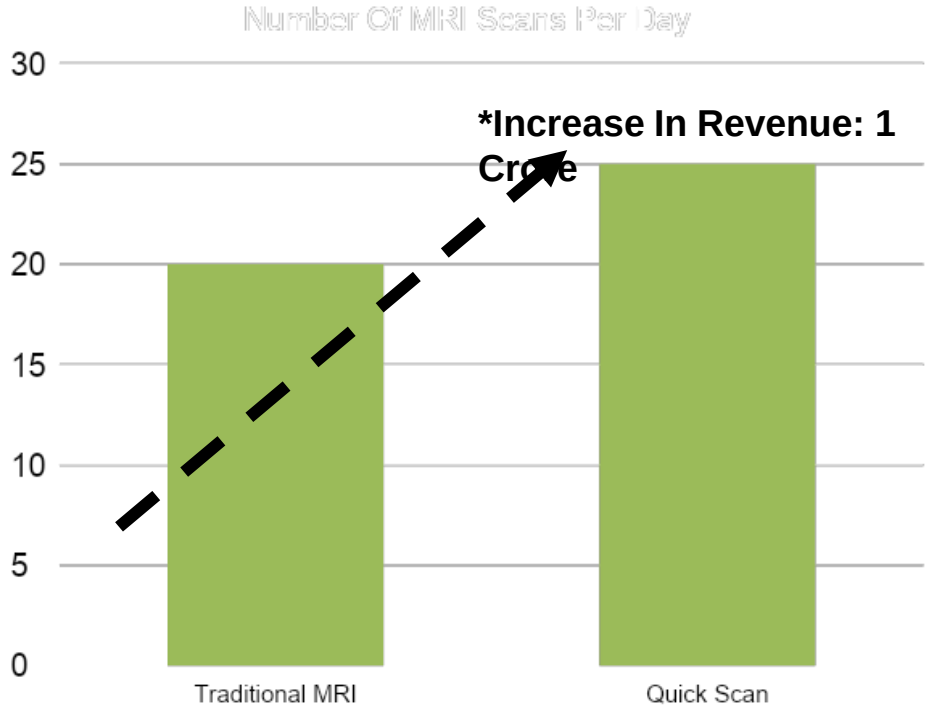
Scans (SOC & fast) are taken at different time



QUICKSCAN (Revenue & Scan Impact)



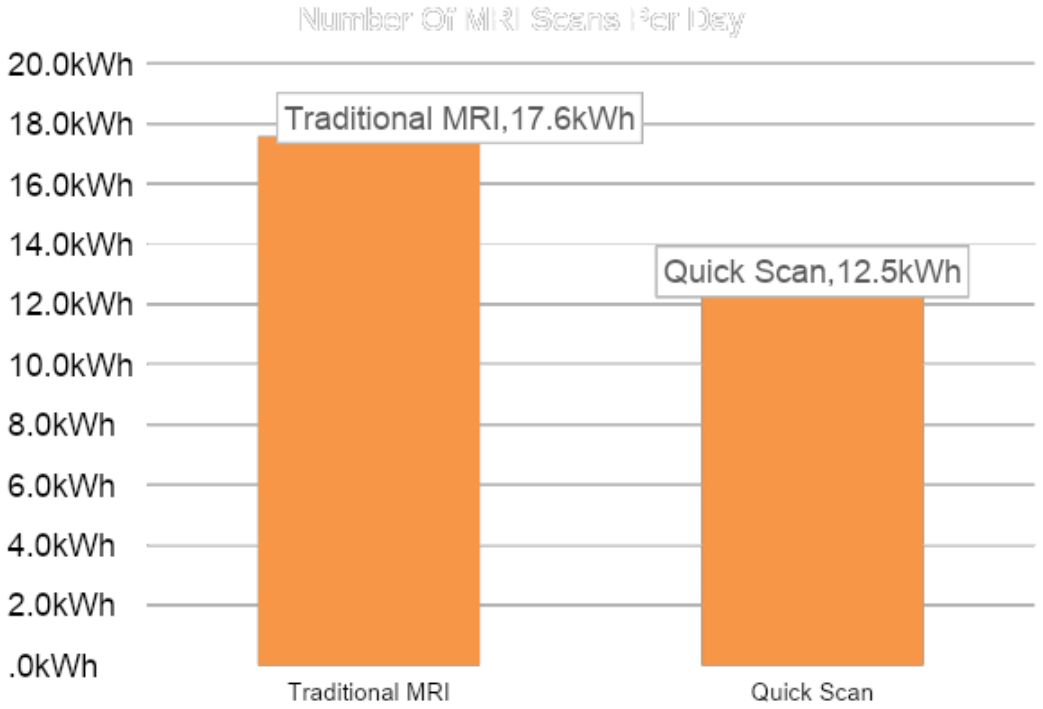
	TRADITIONAL MRI	QUICKSCAN	TIME SAVED	
SHOULDER	14 Min 07 Seconds	09 Min 45 Seconds	4Min 62 Seconds	
LS SPINE	12 Min 36 Seconds	9 Min 44 Seconds	2 Min 92 Seconds	
ABDOMEN	9 Min 6 Seconds	6 Min 0 Seconds	3 Min 6 Seconds	
BRAIN	13 Min 0 Seconds	9 Min 10 Seconds	3 Min 9 Seconds	
TOTAL TIME	**48 Min 49 Seconds**	**33 Min 9 Seconds**	**14 Min 5 Seconds**	**29.9%**



Current Scans/Day	New Scan/Day	Expected Revenue Increase	Increase In Revenue (300 Days and INR 7000 Scan)
20	25	25%	1 Crore

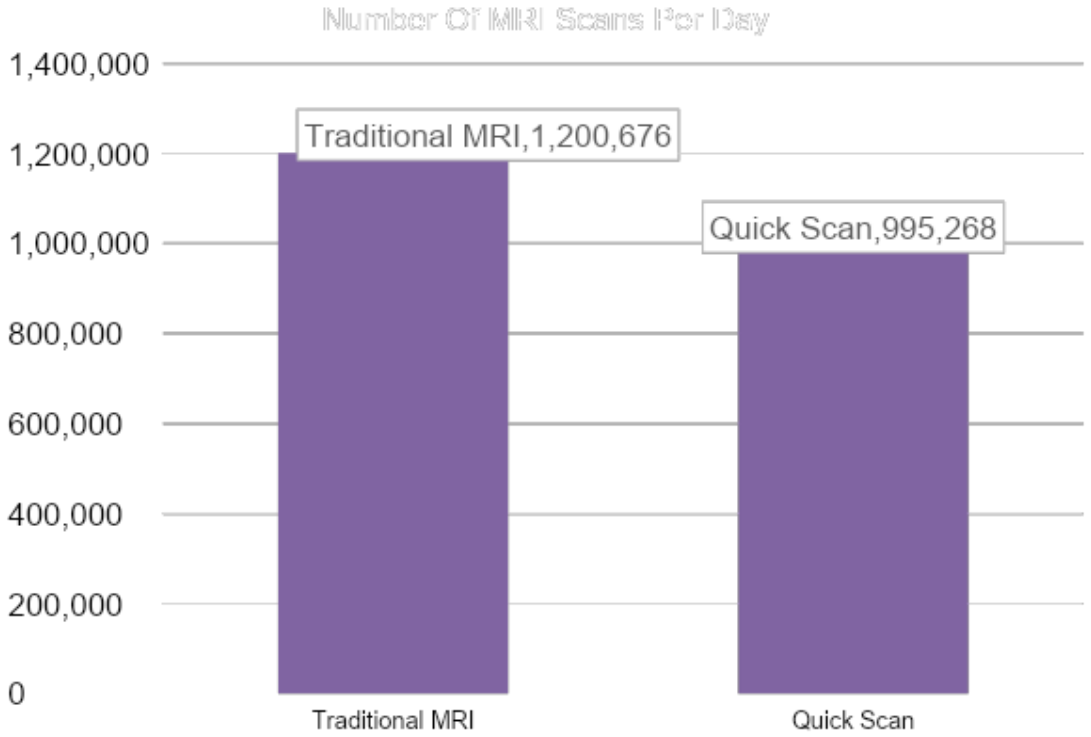
QUICKSCAN

(Energy Saving Impact)



Energy Consumption Per Scan

Traditional MRI Energy Consumption (Per Scan)	QuickScan MRI Energy Consumption (Per Scan)	Reduce in Consumption (Per Scan)	Cost Saved in Energy Consumption (Per Scan)
17.7kWh	**12.5 kWh**	**5.1 kWh**	**$0.66**

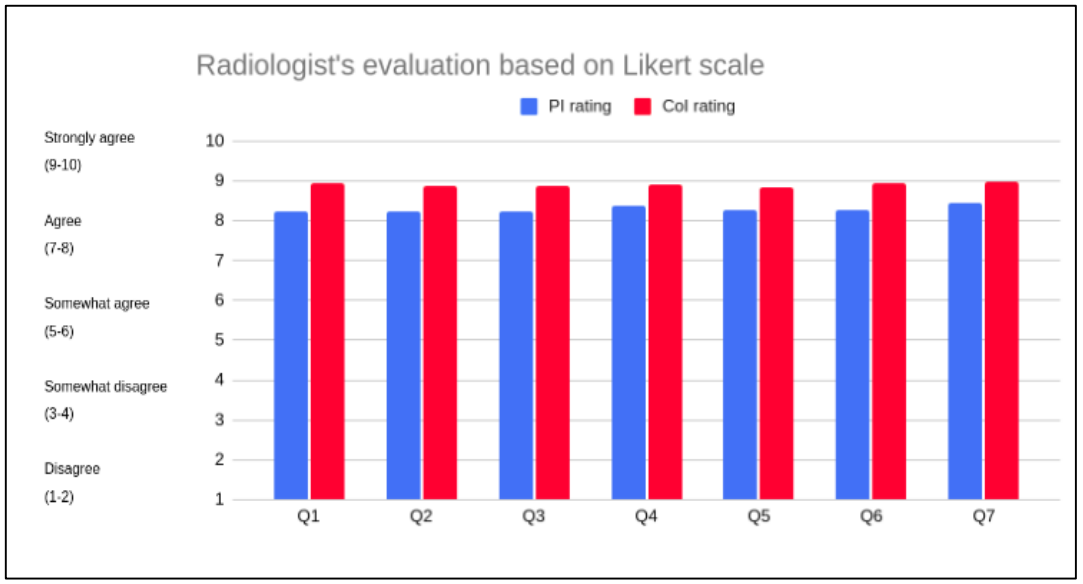


Energy Consumption Per Year

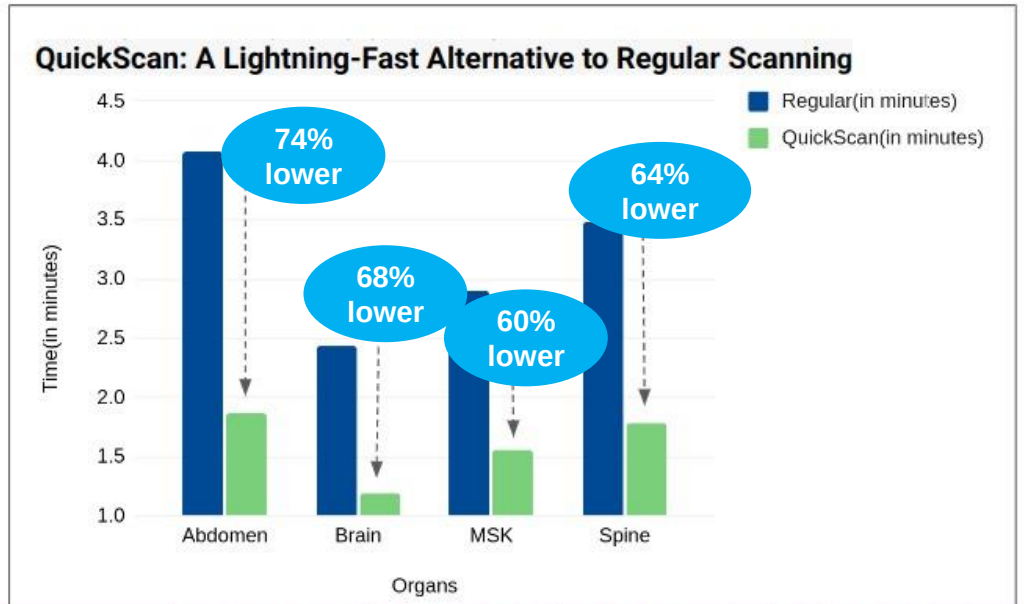
Traditional MRI Energy Consumption (For 40,276 Scans)	QuickScan MRI Energy Consumption (For 40,276 Scans)	Difference in Total Cost to Run (For 40,276 Scans)	Savings Percentage (For 40,276 Scans)
12,00,676 kWh	***9,95,268 kWh***	***$26,292***	***17%***

Clinical Study at JSS HOSPITAL

Radiologists agreed that images were sharper, lower noise and good delineation of pathology & anatomy with user-friendly viewer



Q1: Good delineation of Pathology after QuickScan processing
Q2: Good delineation of Anatomy observed after QuickScan processing
Q3: Reduced noise levels and sharper images after QuickScan processing
Q4: Aikenist produced high image quality after post processing compared to standard acquired images.
Q5: Temporal resolution of the post processed Aikenist images are superior compared to standard acquired images.
Q6: Aikenist PACS software with viewer -QuickRad is user-friendly and has good features.
Q7: Overall impact of QuickRad and QuickScan for workflow and diagnostic capabilities in radiology practice is good.



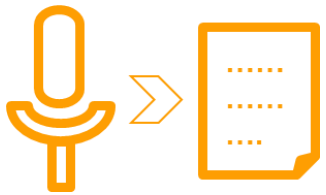
Organ	Regular (in minutes)	QuickScan (in minutes)	Time saved (in minutes)	Time Reduction (in %)
Abdomen	4.075	1.865	2.21	74.41
Brain	2.429	1.190	1.24	68.43
MSK	2.905	1.555	1.35	60.53
Spine	3.481	1.789	1.69	64.21

"Aiken Quickscan accelerates MRI scan time. This is a must have solution for better MRI machine usage and Patient convenience"

Dr Vikram Patil, Associate Professor
https://jsshospital.in/radio-diagnosis-imaging/doctors/Dr-Vikram-Patil

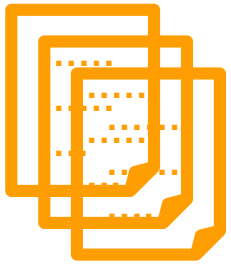
AIkenist

QuickDiag - Next Gen Reporting and Sharing



Speech to text reducing report time, Generate report automatically given disease, parameters

WhatsApp and SMS Integration for easier Doctor-Patient Communication



Generative AI based summary generation from reports

Single Pane (Viewer + Report) (cloud-based) Dashboard with Patient-Doctor Log-in.

QuickRad - AI Workflow with PACS & RIS

AI Smart Workflow with PACS & RIS

Artificial Intelligence

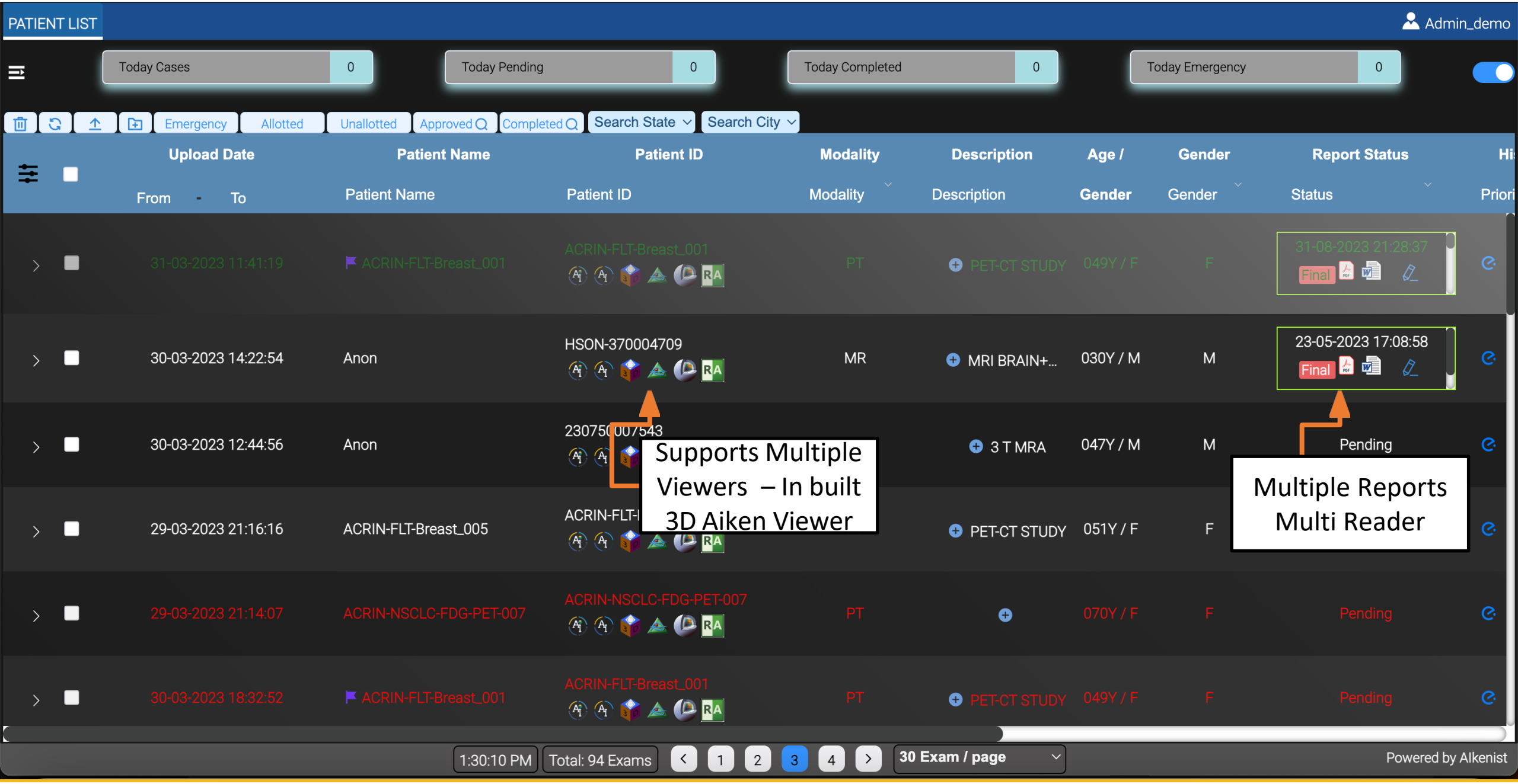
Smart Workflow for reporting, viewing with PACS & RIS

Easier Communication

WhatsApp and SMS Integration for easier Doctor-Patient Communication.

Medical Grade Viewer

Modern zero foot print viewer with 3D, Annotation and AI capabilities

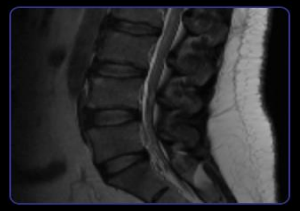

PATIENT LIST
Admin_demo
Today Cases 0
Today Pending 0
Today Completed 0
Today Emergency 0
Emergency
Allotted
Unallotted
Approved
Completed
Search State
Search City
Upload Date
From - To
Patient Name
Patient ID
Modality
Description
Age / Gender
Gender
Report Status
Status
ACRIN-FLT-Breast_001
PT
PET-CT STUDY
049Y / F
F
31-08-2023 21:28:37
Final
31-03-2023 11:41:19
ACRIN-FLT-Breast_001
HSON-370004709
MR
MRI BRAIN+...
030Y / M
M
23-05-2023 17:08:58
Final
30-03-2023 14:22:54
Anon
3 T MRA
047Y / M
M
Pending
30-03-2023 12:44:56
Anon
Supports Multiple Viewers – In built 3D Aiken Viewer
Multiple Reports Multi Reader
29-03-2023 21:16:16
ACRIN-FLT-Breast_005
PET-CT STUDY
051Y / F
F
ACRIN-NSCLC-FDG-PET-007
PT
070Y / F
F
Pending
29-03-2023 21:14:07
ACRIN-NSCLC-FDG-PET-007
30-03-2023 18:32:52
ACRIN-FLT-Breast_001
PT
PET-CT STUDY
049Y / F
F
Pending
1:30:10 PM
Total: 94 Exams
1
2
3
4
30 Exam / page
Powered by AIkenist

AIkenist

Reporting with Viewer

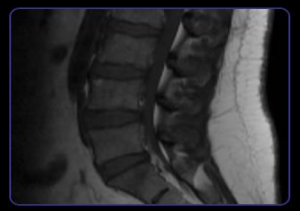
24-May-2023 | 91

MR | MRI LS SPINE

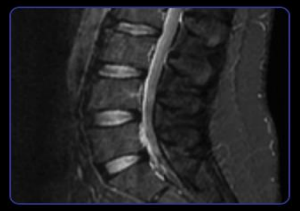


S: 3 | 11
T2 FSE SAG

B



S: 4 | 11
T1 SE SAG



S: 5 | 11
STIR SAG

A | 24-May-2023 | JAI PRAKASH 35Y/M

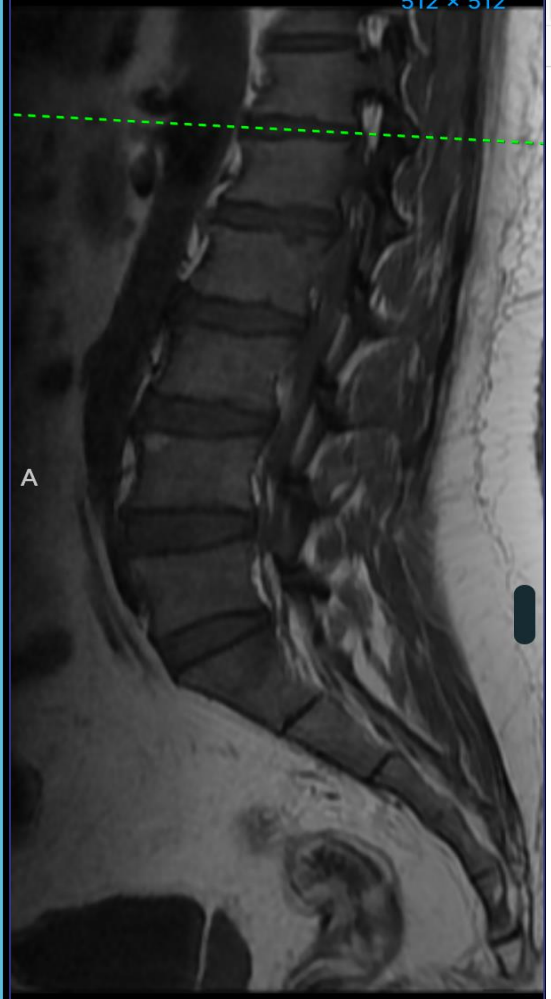
W: 1503 L: 751 AHL

I: 4 (4/24)
Loc: 134.51 mm
Thick: 4.00 mm
512 × 512

B | 24-May-2023 | JAI PRAKASH 35Y/M

W: 2204 L: 1102 HL

I: 7 (7/11)
Loc: -18.77 mm
Thick: 4.00 mm
512 × 512



Create Report | Add Template | Comments | Previous Report

MR : Dorso-Lumbar | Voice Search | Get All Templates

Part Examined: MRI of Dorso-Lumbar spine With Whole Spine Screening

Brief Clinical Notes: Low Backache.

Technique: A total of 4 sequences were performed consisting of T1 TSE Sagittal, T2 TSE Sagittal, T2 TSE Axial & T1 TSE Axial. (Another one seq T2 TSE MT Sagittal for Whole spine)

Findings:

Normal physiologic curvature is reduced at lumbar region.
The vertebral bodies appear normal in height & demonstrate a normal pattern of marrow signal intensity.
Early desiccated disk are noted at multiple level of lumbar spine without any significant disk bulge or protrusion.
The dorsal cord is normal in thickness and signal intensity.
The conus medullaris is normal in location and appearance.
No abnormality of the visualized retroperitoneal or paravertebral soft tissue is shown.

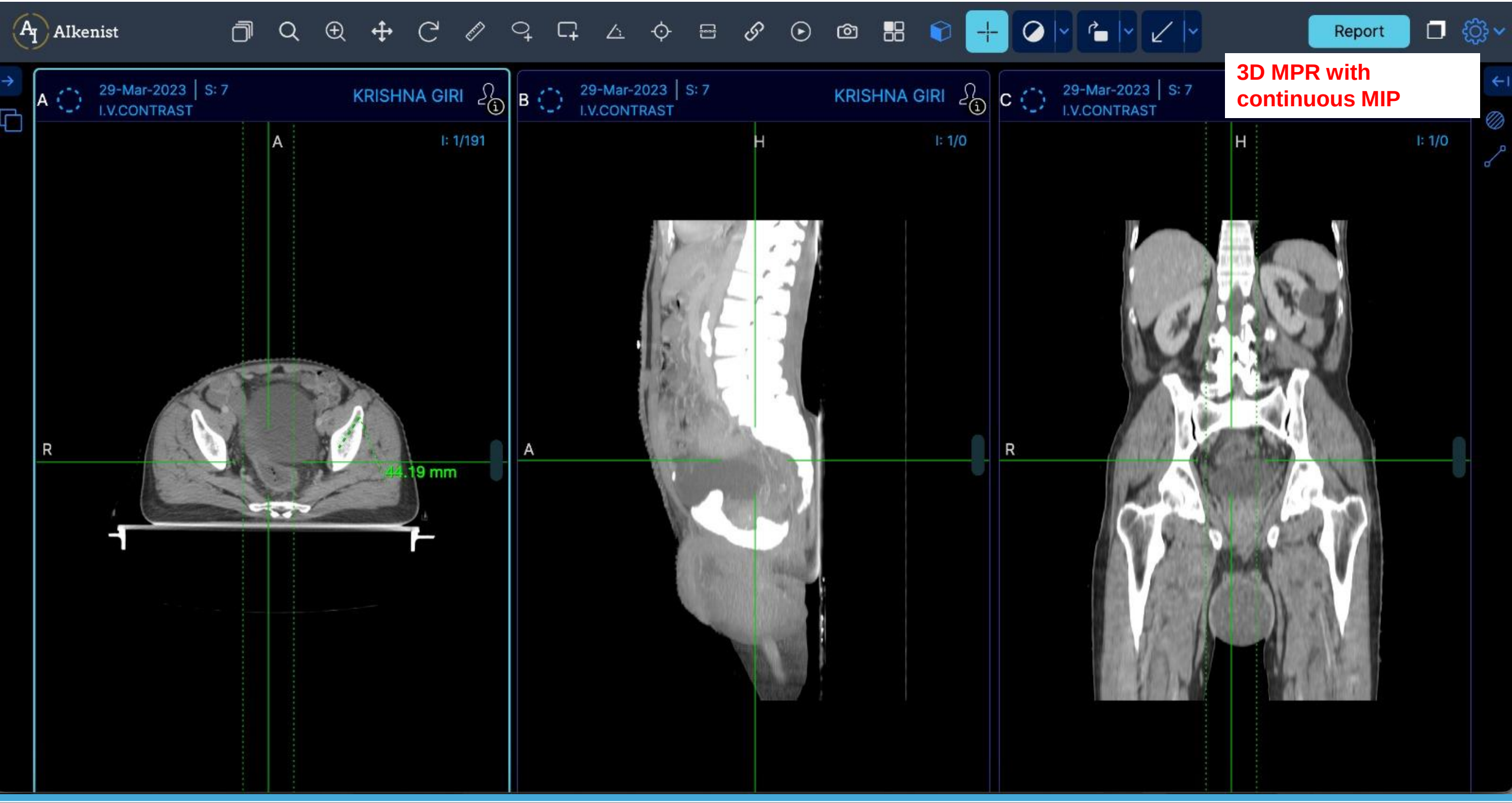
Recording Playback

Speech to Text

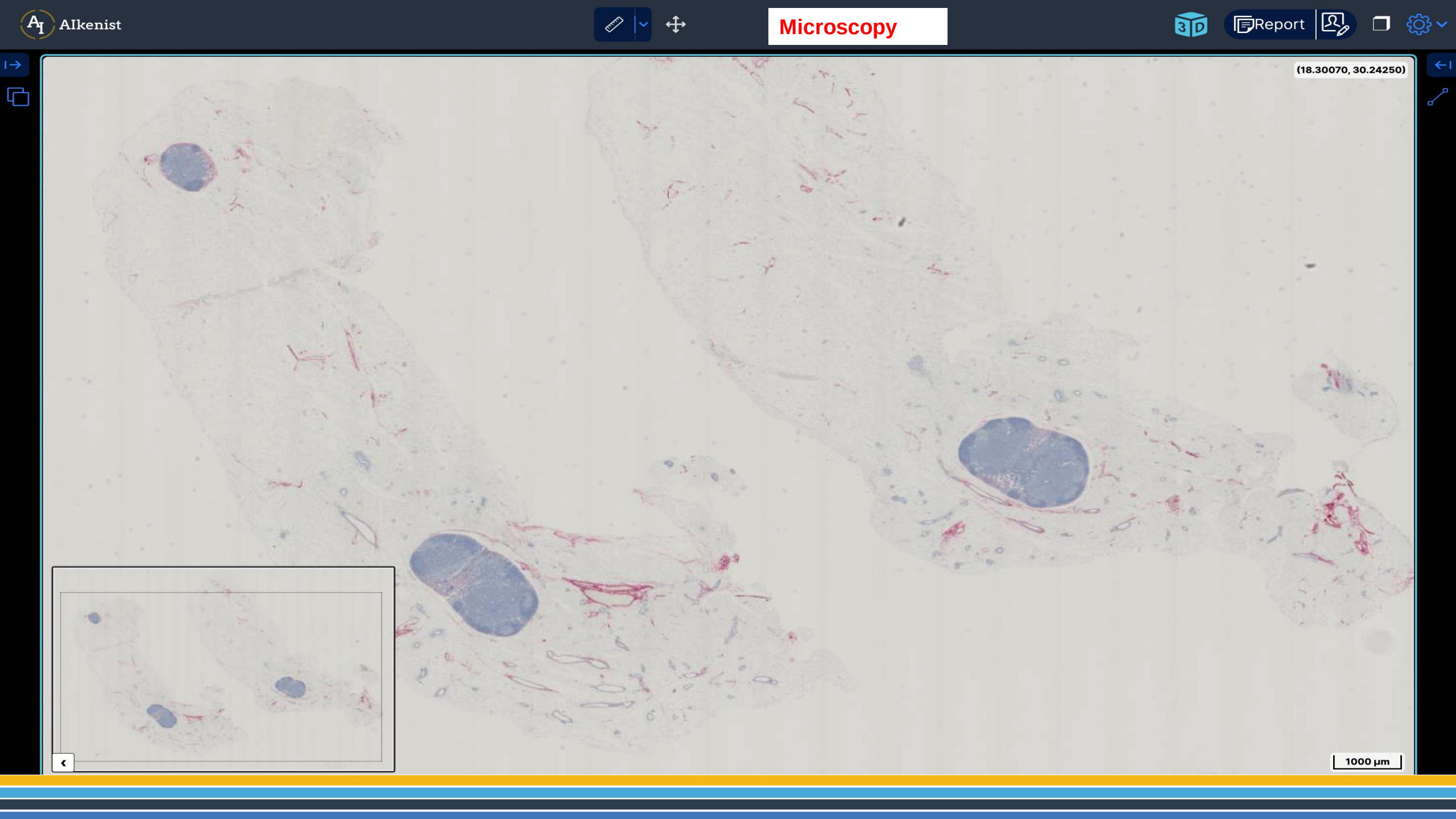
Impression:

Normal physiologic curvature is reduced.
The vertebral bodies appear normal in height.
Early desiccated disk are noted at multiple level of lumbar spine.
The dorsal cord is normal in thickness and signal intensity.
The conus medullaris is normal in location and appearance.

DRAFT | FINAL & RELEASE


Alkenist
Report
3D MPR with continuous MIP
A
29-Mar-2023 | S: 7
I.V.CONTRAST
KRISHNA GIRI
I: 1/191
44.19 mm
B
29-Mar-2023 | S: 7
I.V.CONTRAST
KRISHNA GIRI
I: 1/0
C
29-Mar-2023 | S: 7
I.V.CONTRAST
I: 1/0

AIkenist
3D VR
CT AAA
SAL
AIL
Slice: 257/512
W/L: 496.00 / 248.00
SAL
RSA
Slice: 257/512
W/L: 496.00 / 248.00
AIL
RSA
Slice: 42/83
W/L: 496.00 / 248.00


AIkenist
Microscopy
Report
(18.30070, 30.24250)
1000 µm

Artificial Intelligence Analysis Using Aikenist.

Options

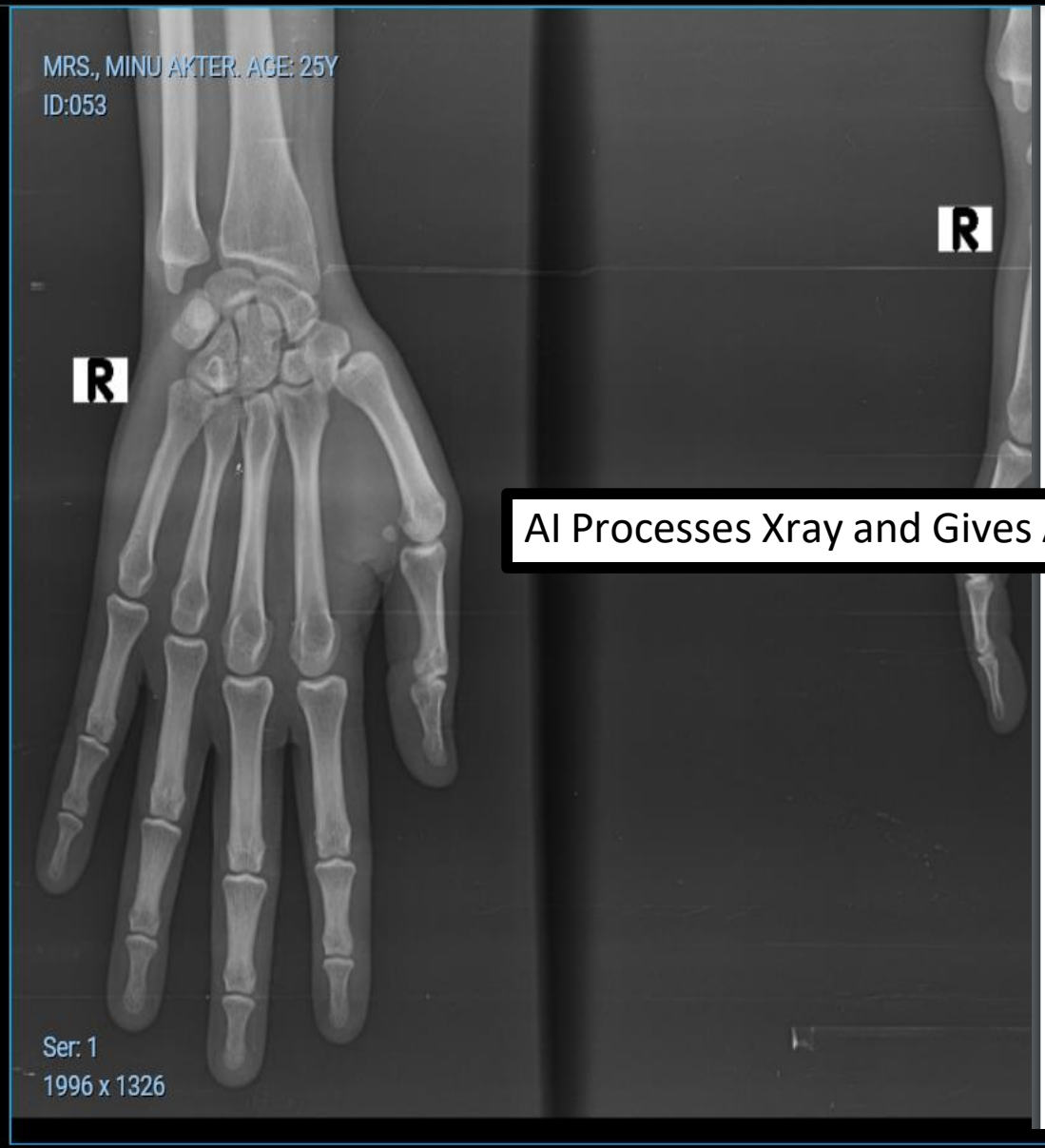
Series | Stack Scroll | Zoom | Magnify | Levels | Sync | Pan | Reset | CINE | Probe/HU | Contrast | Measure | Rotate | Headers | Layout | HangingProtocols | Fullscreen | Overlay | Report | Measurements

s: 1 1

DOC

_1.2.392.200036.9125.3.2361772157514680.64975188790.294840_-Aikenist Processed

s: 9276



Aikenist Generated Observations

Prelimary report auto generated

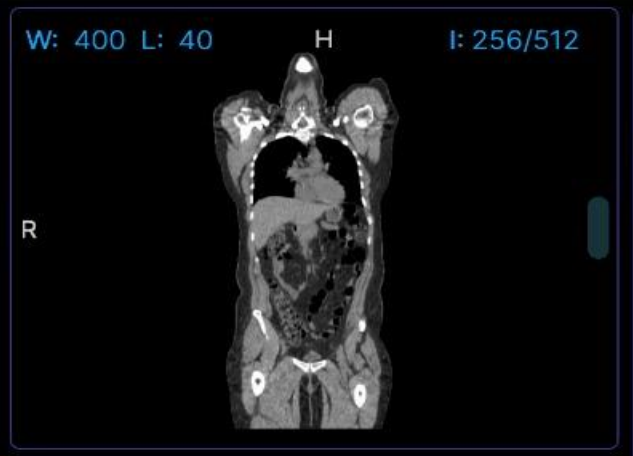
Prelimary report auto generated

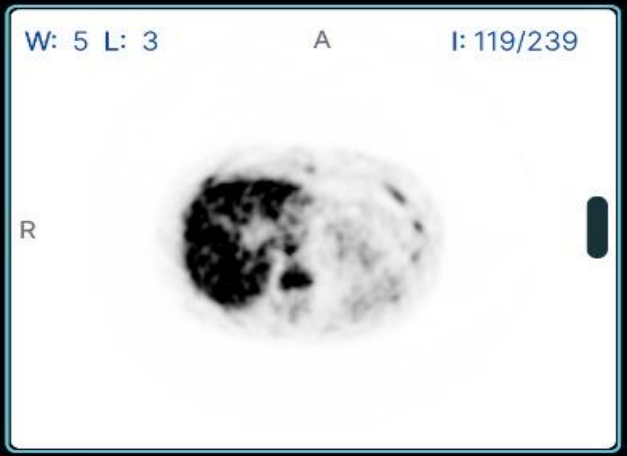
Patient Name: MRS.^MINU^AKTER.^AGE:^25Y

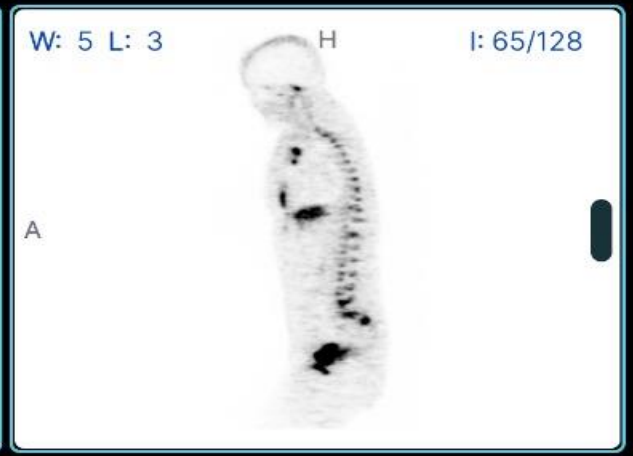
Normal: 0.5513567328453064
Abnormal: 0.4486432671546936

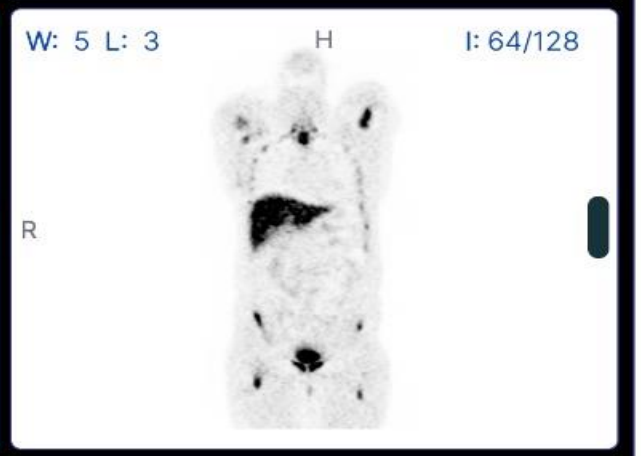
AI Processes Xray and Gives Automated Abnormality Observations.

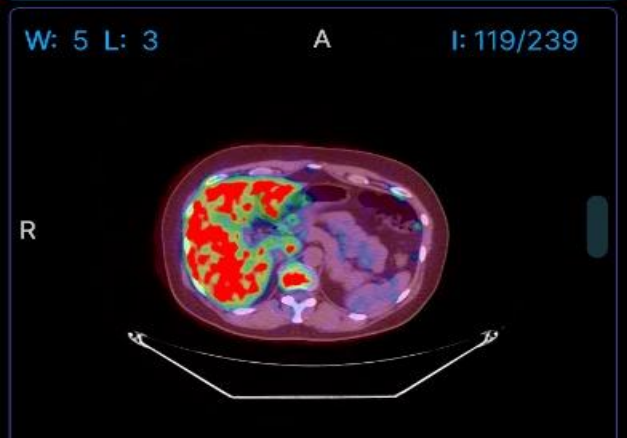
PET CT Fusion

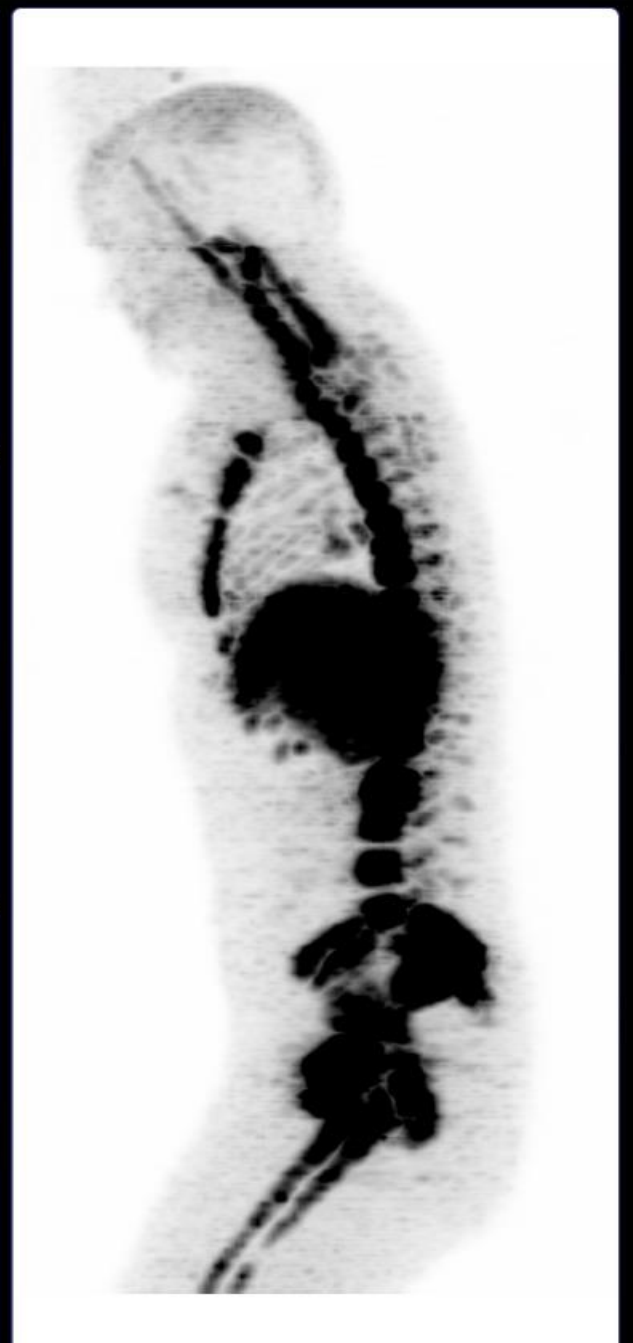












QuickSuite Highlights

Cloud Centric

- **Distributed PACS**
  - Any machine to any radiologist, anywhere in the world
  - Long term storage
- **Secured**
  - Data protection & privacy
  - Identity & access mgmt.
  - Network & app protection
- **Scalable**
  - Build as you go
  - Low CAPEX cost
- **Reliable**
  - No single point of failure
  - Inbuilt in cloud platform

AI Centric

- **Classification**
  - Normal / Abnormal
- **Segmentation**
  - Abnormal region
- **Fast Acquisition**
  - Image enhancement
- **Enhanced Reports**
  - Overlaid reports
  - Report summarization
- **Quantification**
  - Severity score

Mobile Centric

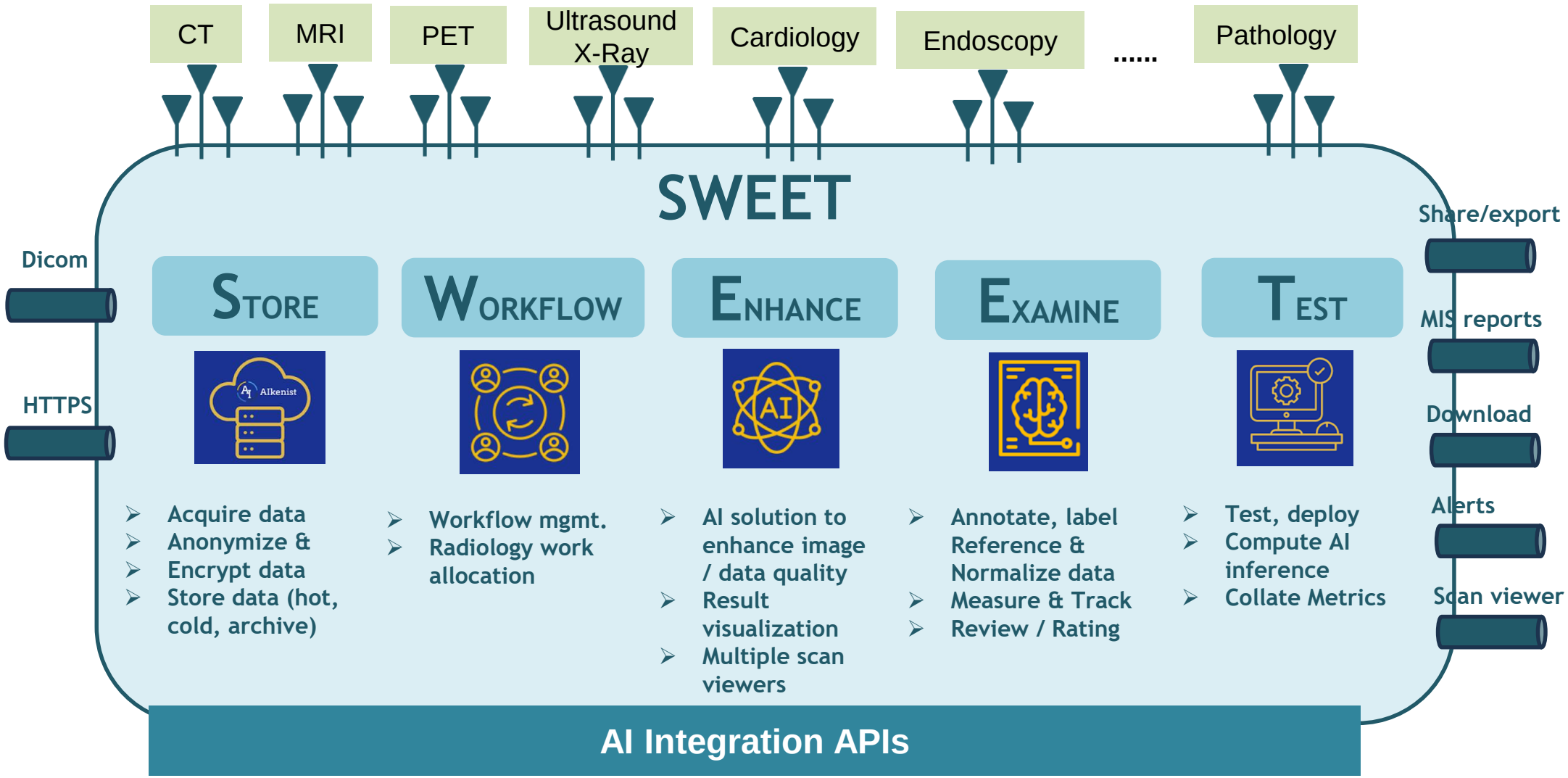
- **Mobile viewer**
  - Scanned image
  - Super resolution
- **Reports Viewing**
  - For Patient
- **Reporting**
  - For Radiologist
- **PACS Mgmt**
  - For PACS admin

Customer Centric

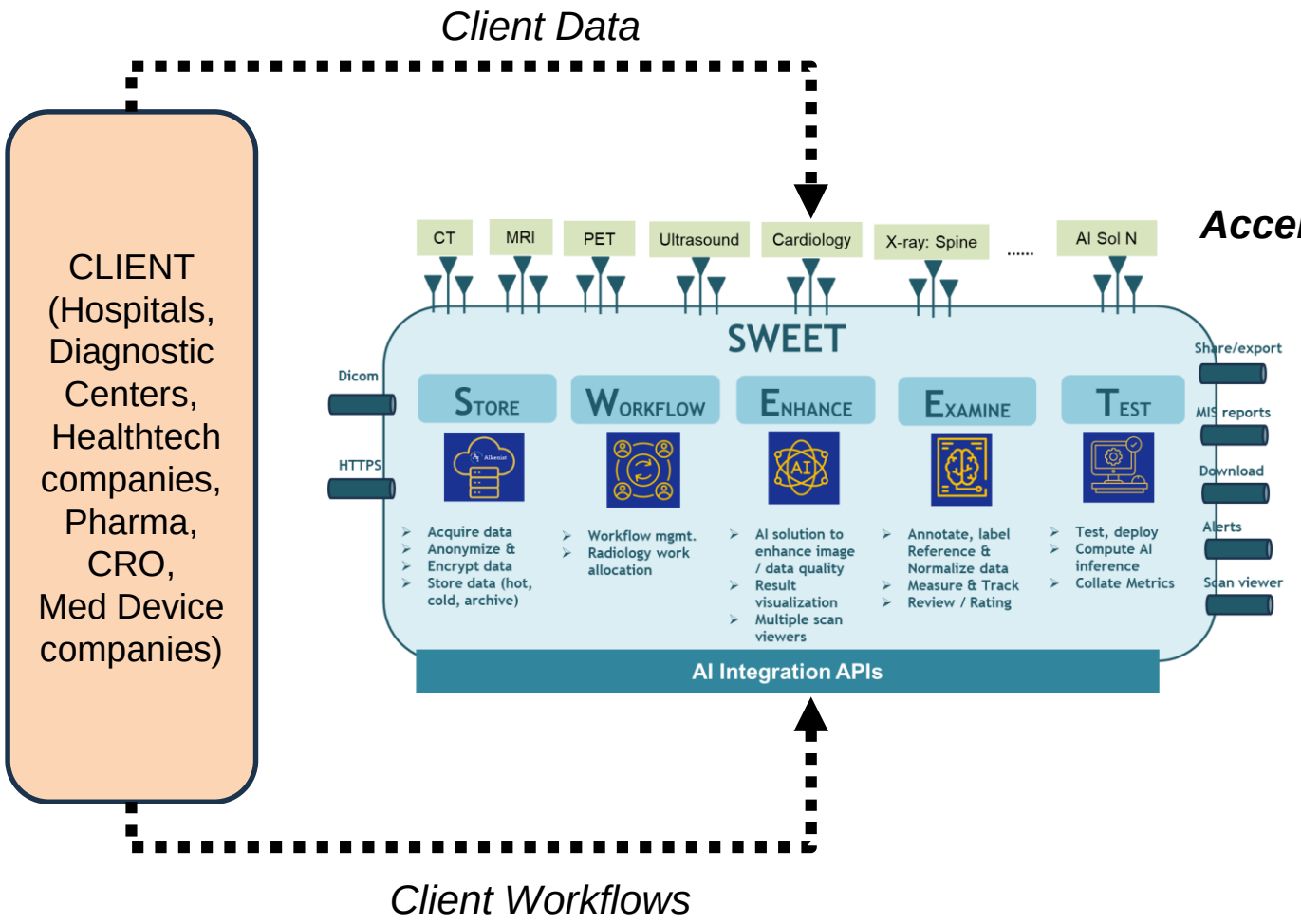
- **Alerts**
  - Mail/SMS/Whatsapp
  - Patient Portal
- **Assisted treatment**
  - Physician interaction
  - Choice of best & affordable medical facilities
- **Convenient**
  - Fast scan
  - Data privacy
- **Smart reports**
  - Access to scans
  - Summary of reports

AIkenist

“SWEET” AI platform for Medical Imaging



SWEET Platform enables MI data management & flow



Accelerates

- ❑ Radiology Workflow with PACS/RIS for Radiology Centers
- ❑ Annotations and AI model development and deployment for research hospitals, Pharma, Healthtech
- ❑ Clinical Data Platform for Pharma, CRO, Hospitals

QuickDiag - AI Analysis

AI Analysis for abnormalities, quantification, alerting

Doctors view scans on mobile Alerts & Prioritization

- Normal vs Abnormal for triaging, alerting
- Quantification for analysis
- Solution is scalable to tens of millions of scans
- Providing Stroke Suite and Onco Suite

BRAIN

CT
Abnormal: Infarcts, Hemorrhage, Tumours

MRI
Abnormal: Infarcts, Hemorrhage, Tumours

SPINE

MRI
Abnormal: Lesions, Fracture

LUNG/CHEST

X-RAY, Mammo, CT
Abnormal : Pneumonia, Pleural Effusion, Consolidation, TB, Lesion

HUMAN BODY

ENDOSCOPY
Abnormal : Polyps

Uses 3rd party solutions

QuickDiag – MR Brain AI

Fast automatic detection of candidate findings with a sensitivity of 98% and specificity of 78% on infarcts, and 86% and 82% on hemorrhages respectively.

Brain MRI analysis and mark-up of regions of interest and findings tagged for PACS in DICOM and PDF formats.

Fully integrated into Aikenist QuickDiag for seamless workflows.

Modality

MRI

Body part

Brain

Clinical scenario

Emergency

Routine

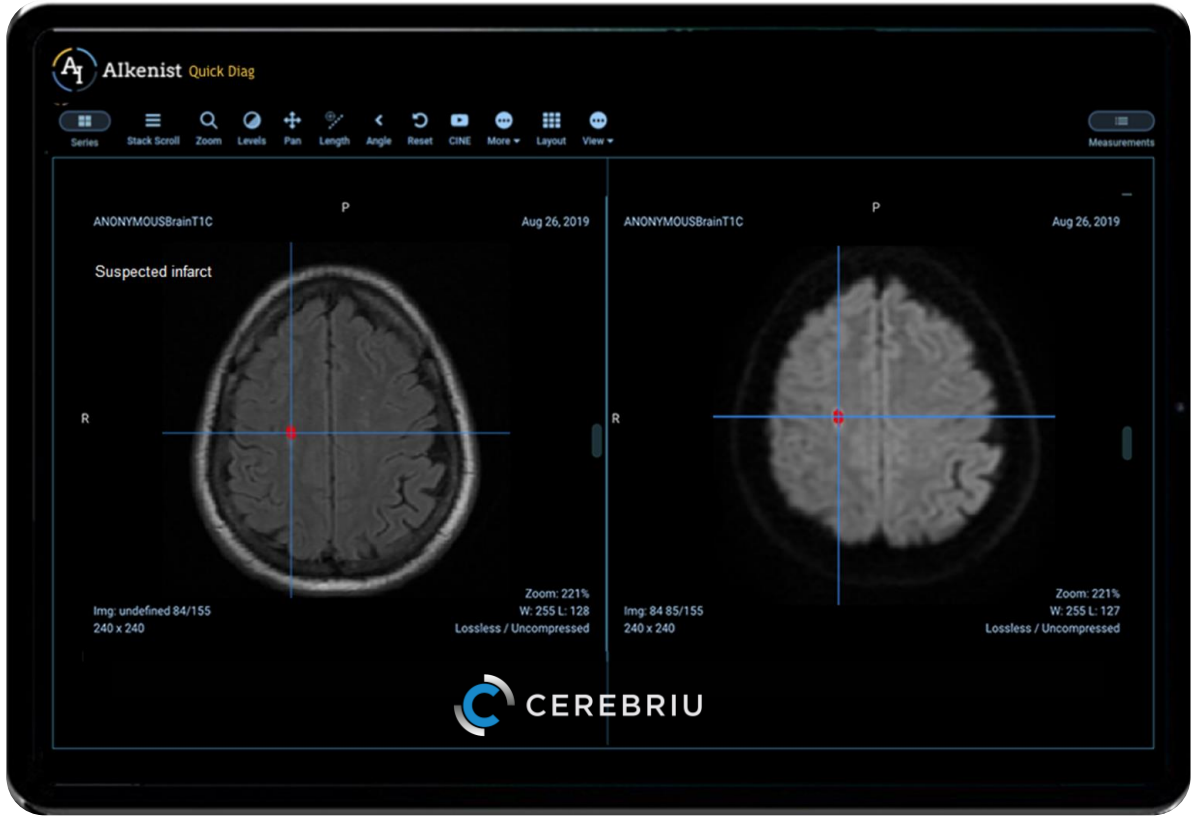
Candidate findings

Infarcts

Intracranial tumors

Intracranial hemorrhages

Cerebriu Brain (CE-marked). Investigational use in US. Not for clinical use in US.



CEREBRIU | brain for MRI is delivered by Aikenist QuickDiag for faster reporting and triage of critical patients.

QuickDiag - MR Stroke AI

Fast automatic detection of suspected infarcts with a sensitivity of 98% and specificity of 78%.

Automatic measure of infarct core volume at mean dice of 0.72 ± 0.18 pre-thrombectomy and 0.85 ± 0.12 post-thrombectomy

Automatic FLAIR-DWI mismatch ratio measured at mean dice of 0.8 ± 0.14.

Modality

MRI

Body part

Brain

Clinical scenario

Emergency

Candidate findings

Infarcts

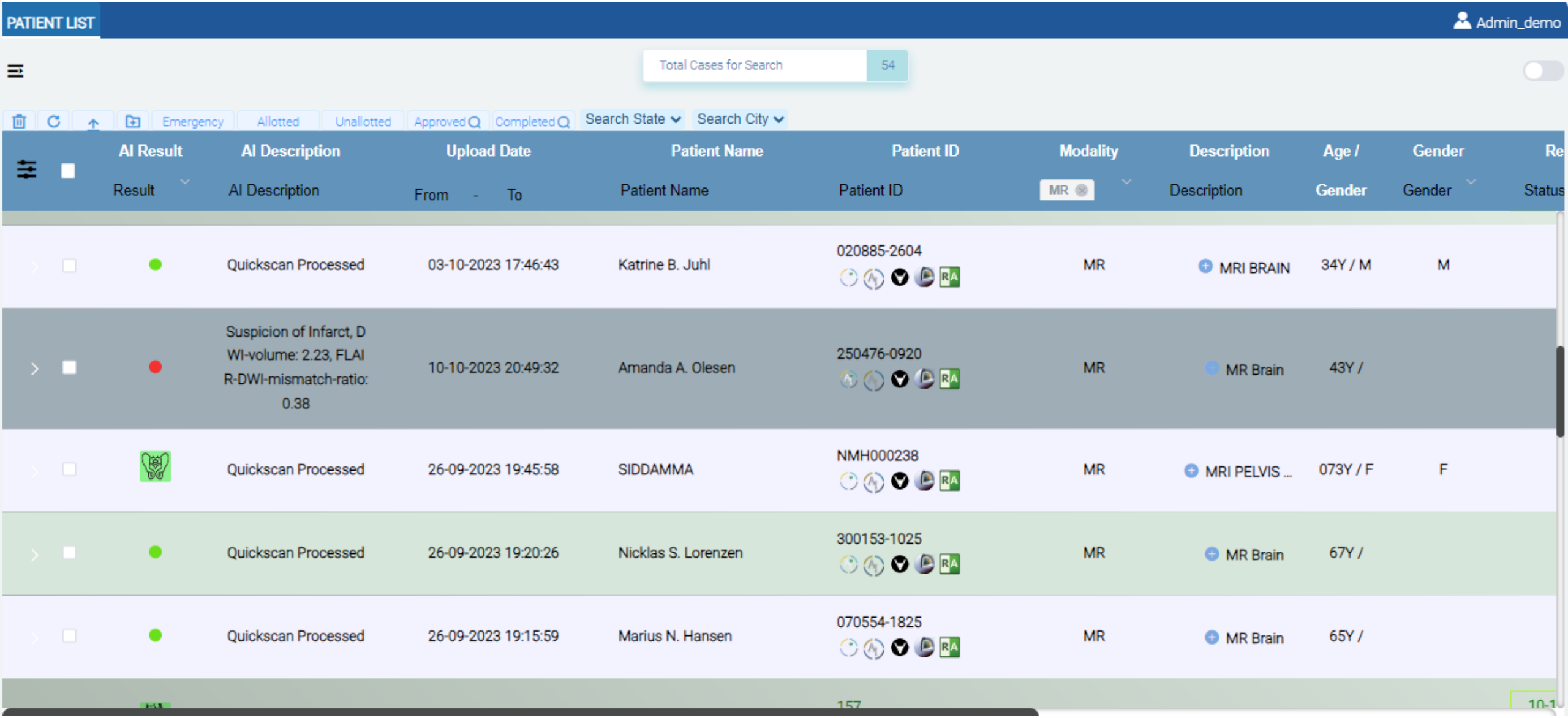
Infarct core volume

FLAIR-DWI mismatch

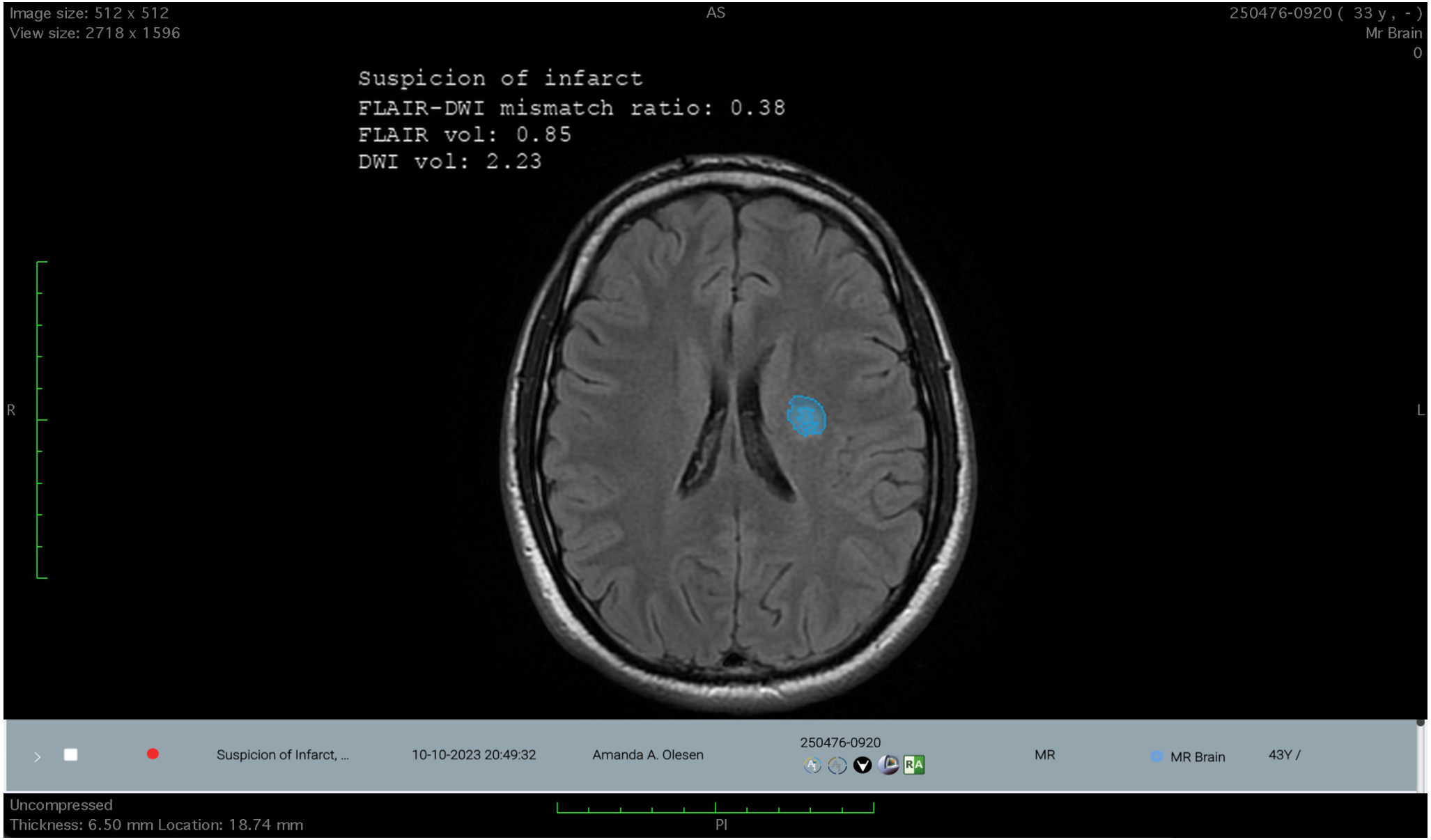
CEREBRIU stroke insights brain MRI delivered by Aikenist QuickDiag for faster, more efficient and confident stroke treatment decision.

Cerebriu Stroke insights is for Investigational use only. Not for clinical use in US.

QuickDiag - MR Stroke AI



QuickDiag - MR Stroke AI



QuickDiag - CT Stroke AI

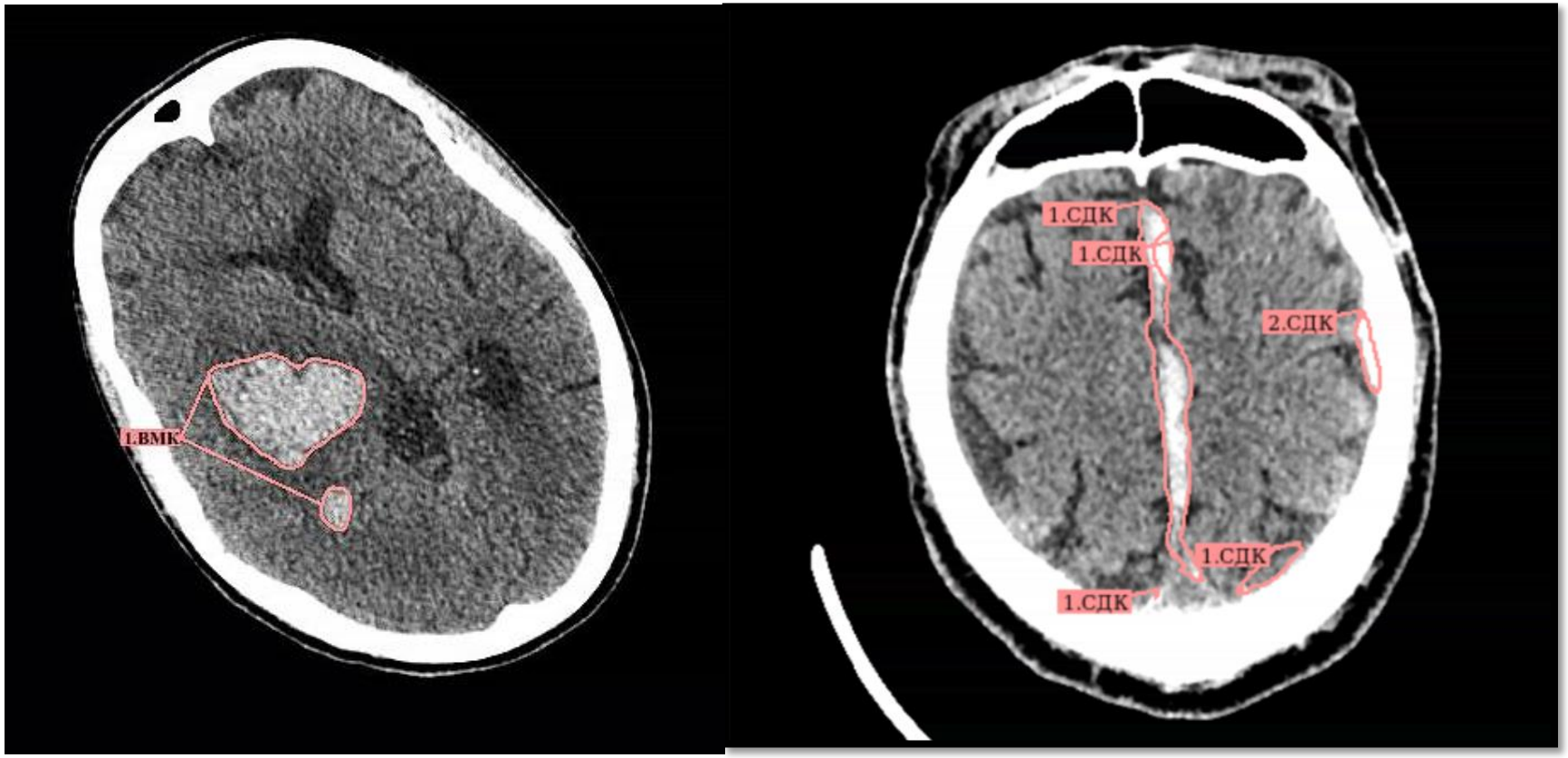
Detection of Ischemic and Haemorrhagic strokes
The processing time of the study less than 2 minutes

AUC = 0.94

Sensitivity = 0.93

Specificity = 0.90

Accuracy = 0.91



subdural hemorrhage
intracerebral hemorrhage

QuickDiag - Mammo Breast Cancer

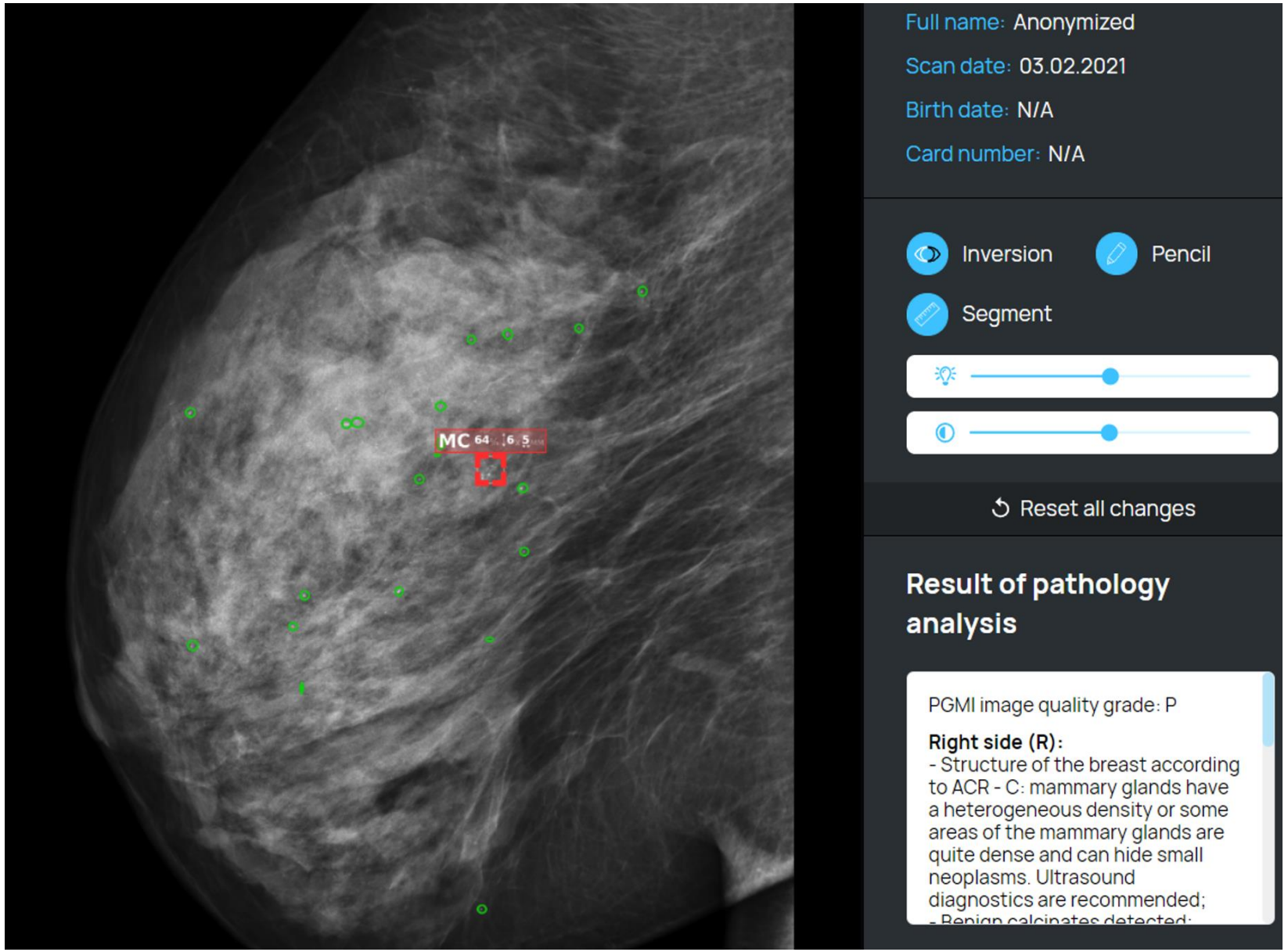
Processing time < 1 minute

AUC = 0.97

Sensitivity= 0.96

Specificity= 0.97

Accuracy= 0.97



QuickDiag - Xray AI Nodules

Processing time < 10 seconds

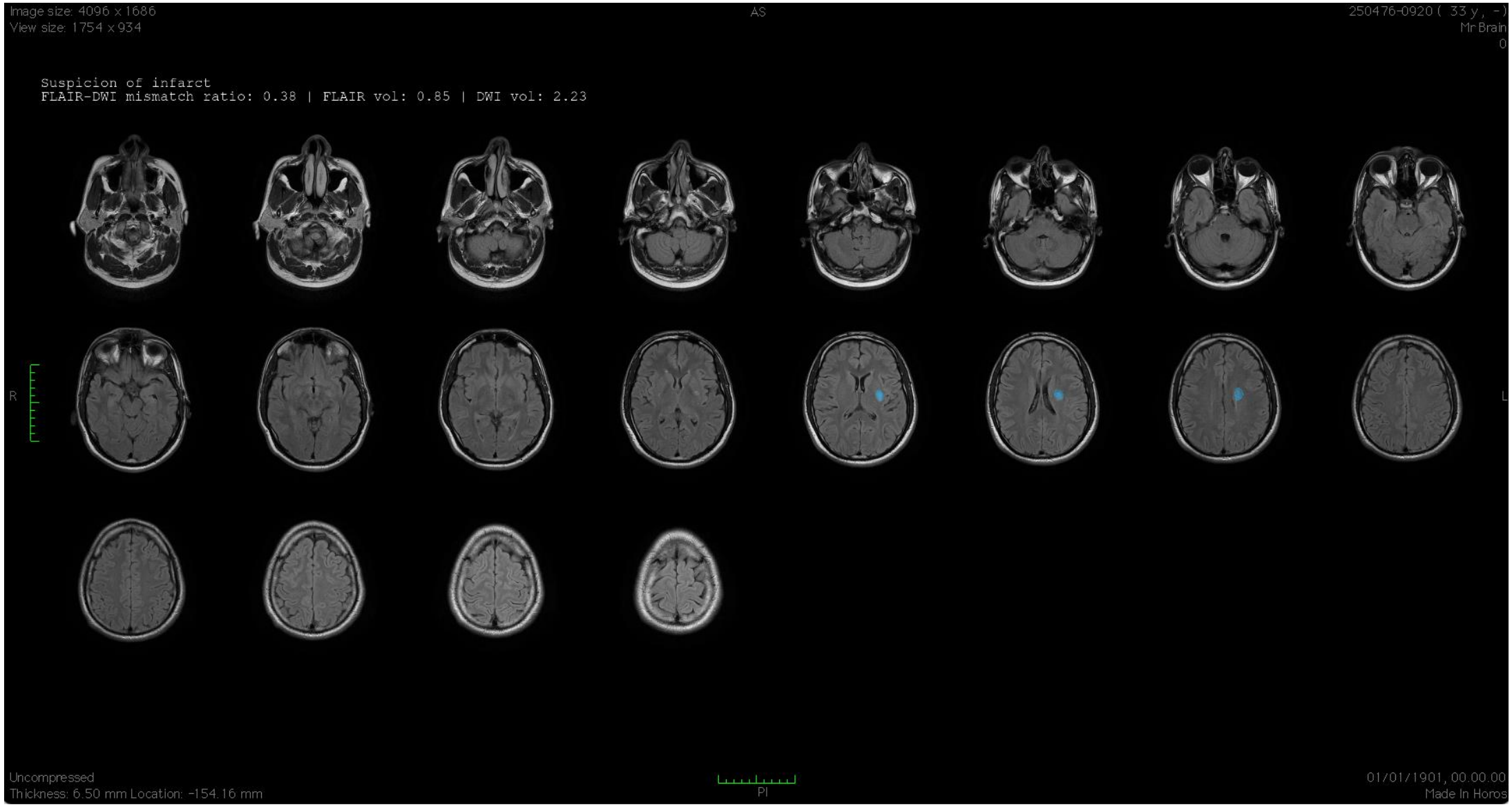
AUC = 0.98

Sensitivity = 0.98

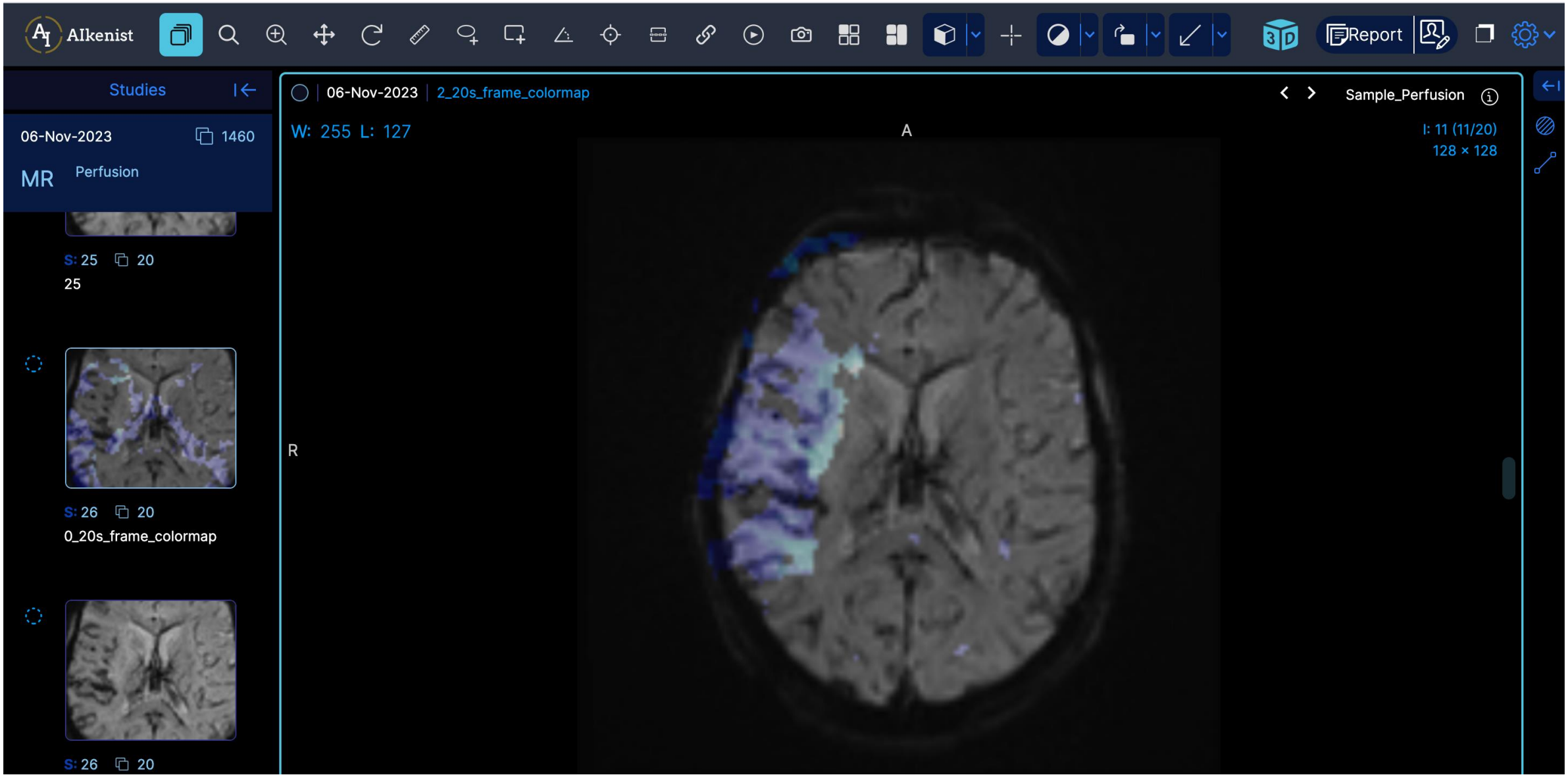
Specificity = 0.92

Accuracy = 0.95

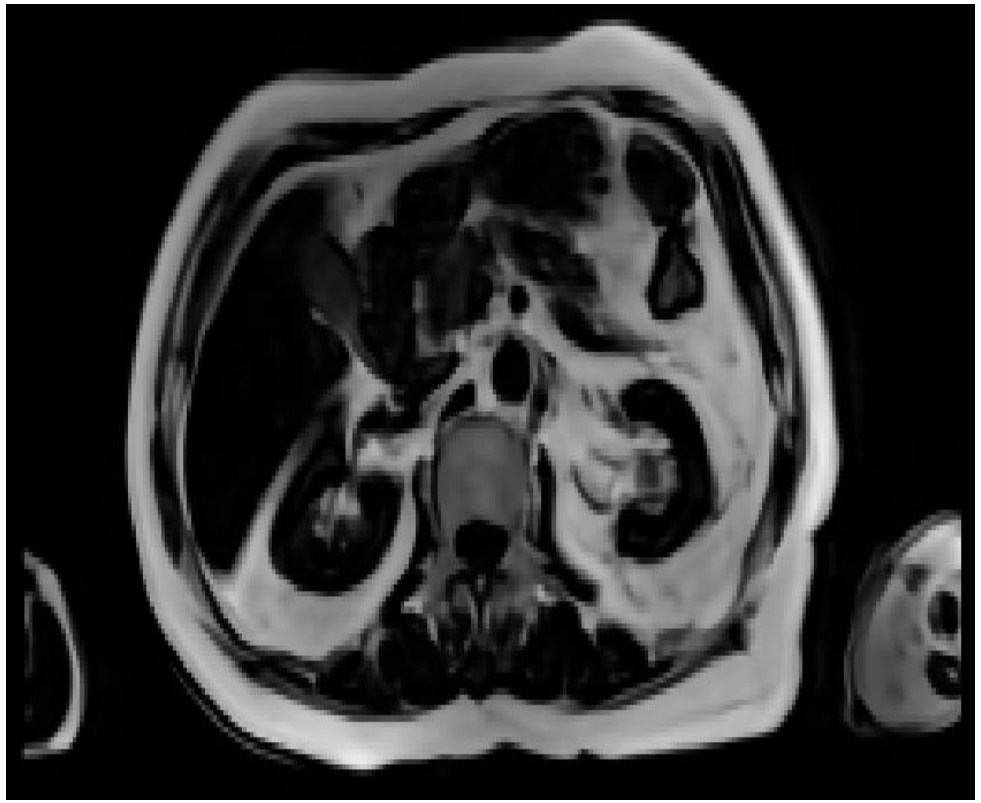
QuickDiag – MR Stroke AI

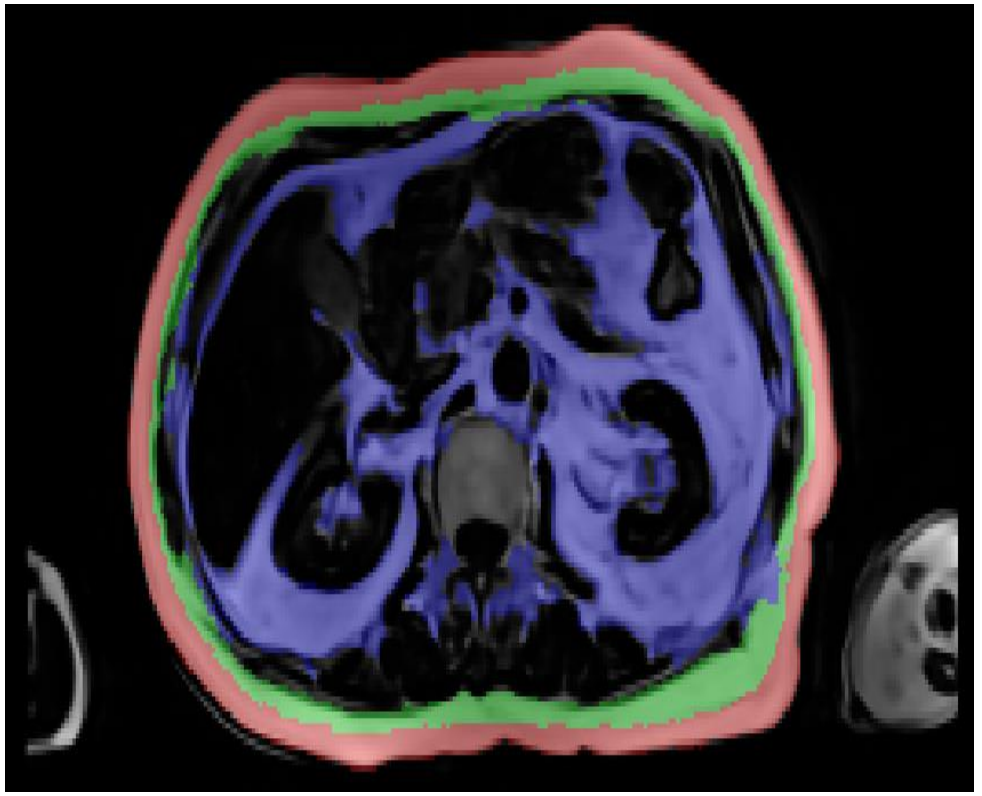


QuickDiag - MR Perfusion



Abdomen Fat Quantification



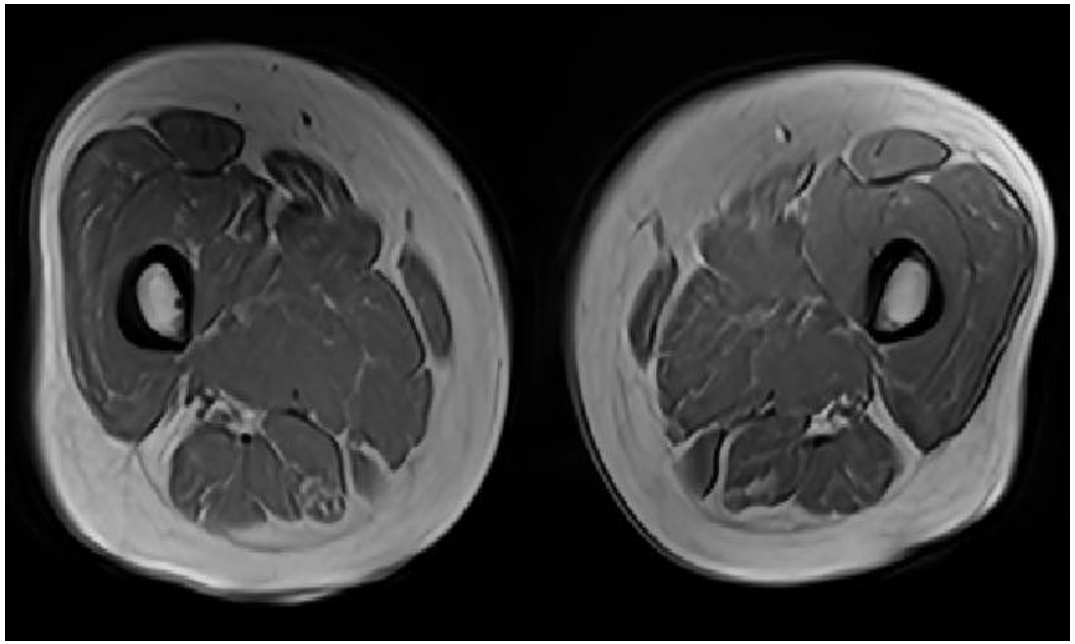


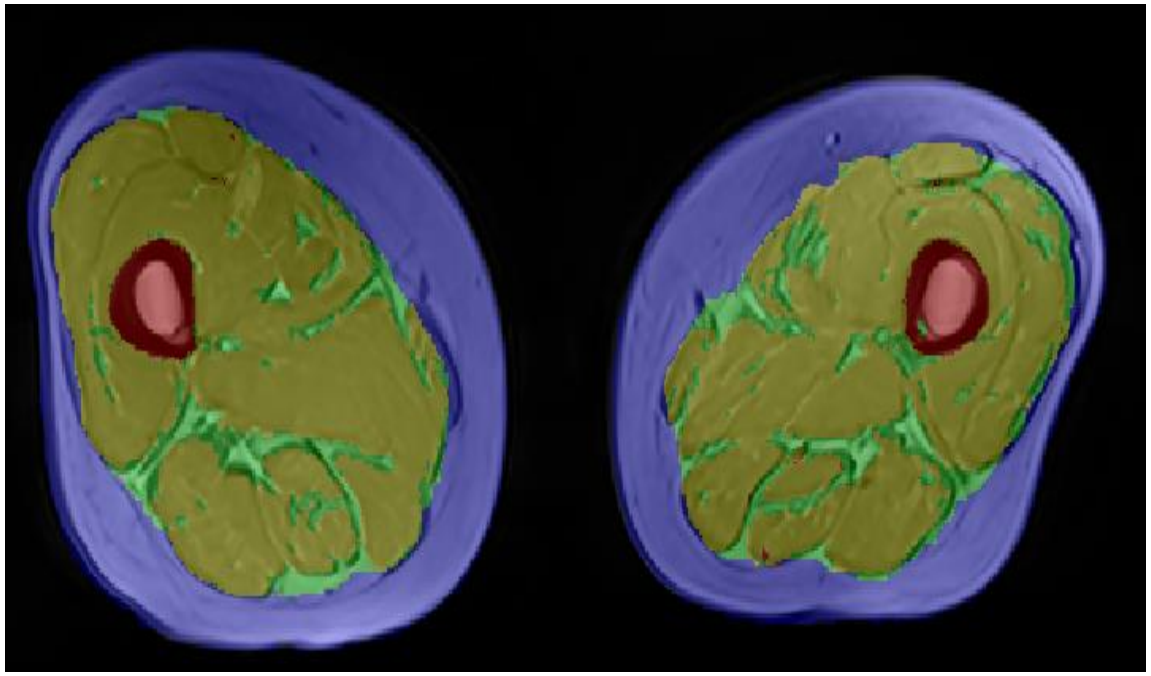
Enhanced Abdomen Scan

Segmentation SSAT,DSAT,VAT Regions

QuickScan MR improved segmentation accuracy of SSAT, DSAT & VAT

Thigh Fat Quantification



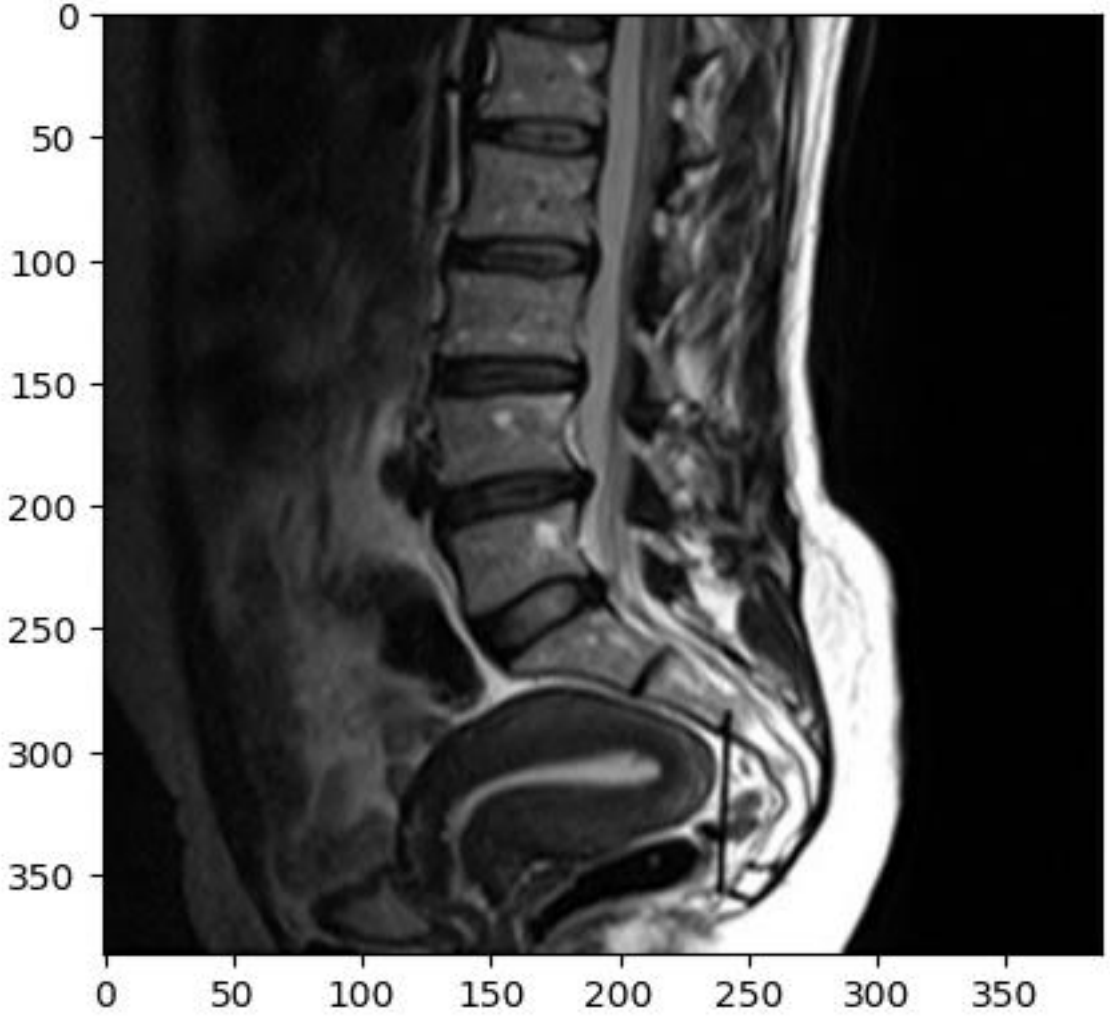


Enhanced Abdomen Scan

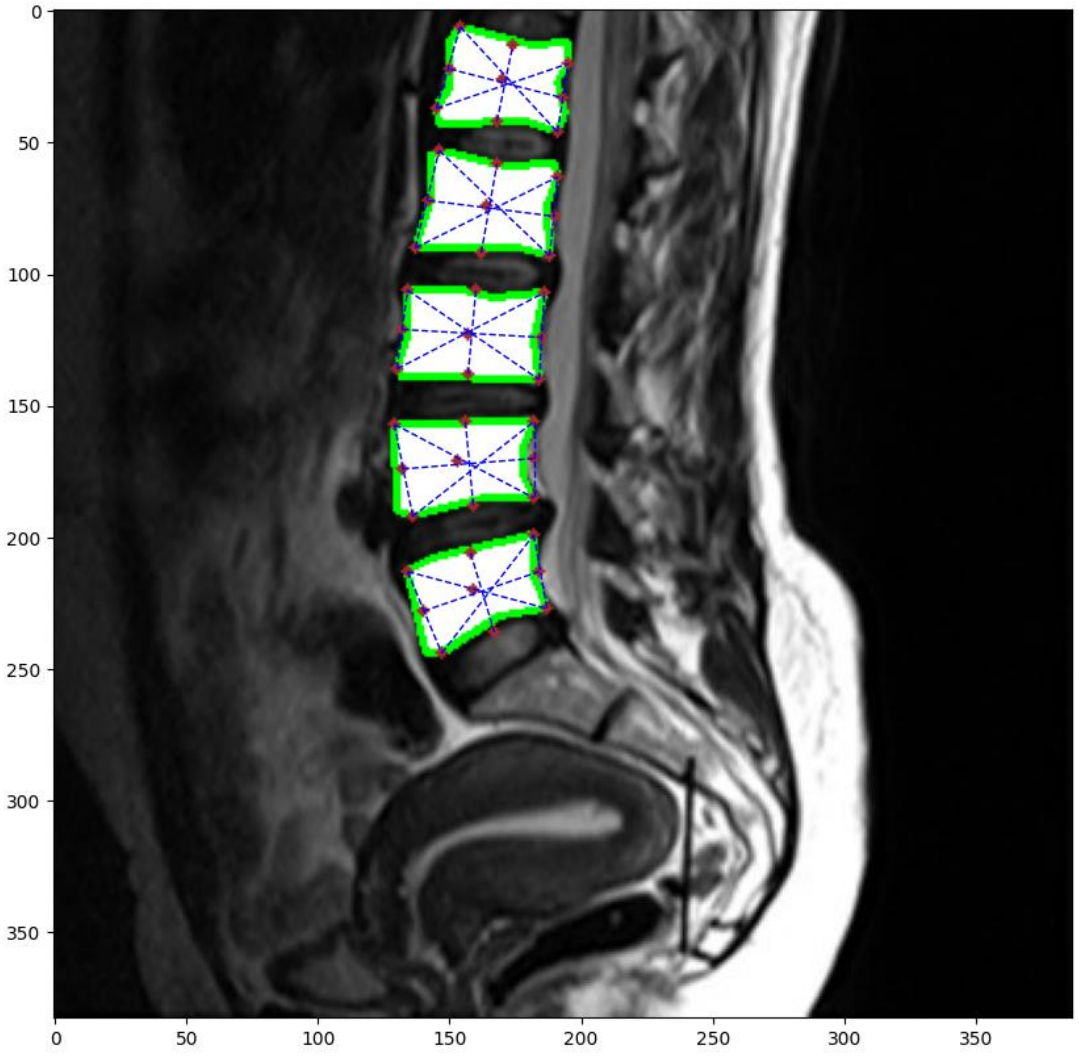
Segmentation Bone, IMAT, Muscle, SAT Regions

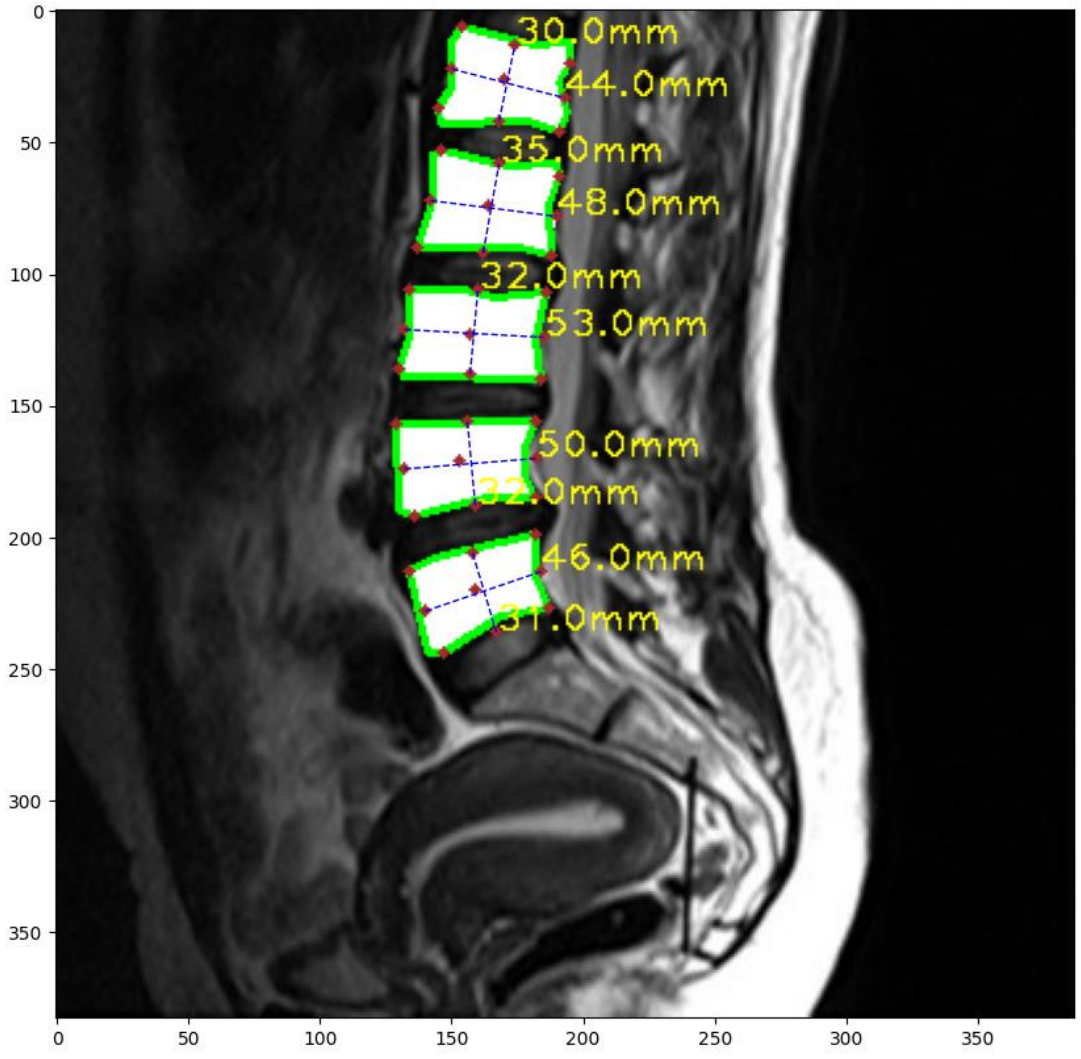
QuickScan MR improved segmentation accuracy of Bone, IMAT, Muscle , SAT Regions

Sample Images and Results



Sample Images and Results





AIkenist

Industry Recognition

AWARDS

Elevate 100

ZS Prize Top 20

CE Emerging Unicorn

PARTNERS

Microsoft for Startups

aws Activate

NVIDIA INCEPTION PROGRAM

EDISON STARTUPS POWERED BY GE HEALTHCARE

ASSOCIATIONS

C-CAMP Centre for Cellular and Molecular Platforms

APACMed The voice of MedTech

Jio GENNEXT

RICH Research and Innovation Circle of Hyderabad

CSIR - Centre for Cellular & Molecular Biology
Council of Scientific and Industrial Research
Ministry of Science & Technology, Govt. of India

COMPLIANCE & PATENTS

ISO 13485 14971 62304

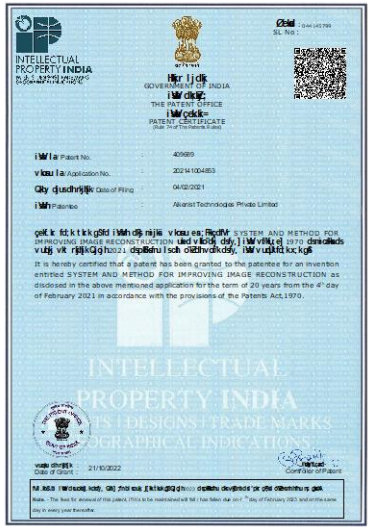
HIPAA

HL7 FHIR

DICOM Digital Imaging and Communications in Medicine

FDA and CE are in process

NABH National Accreditation Board for Hospitals & Healthcare Providers (NABH)



AIkenist

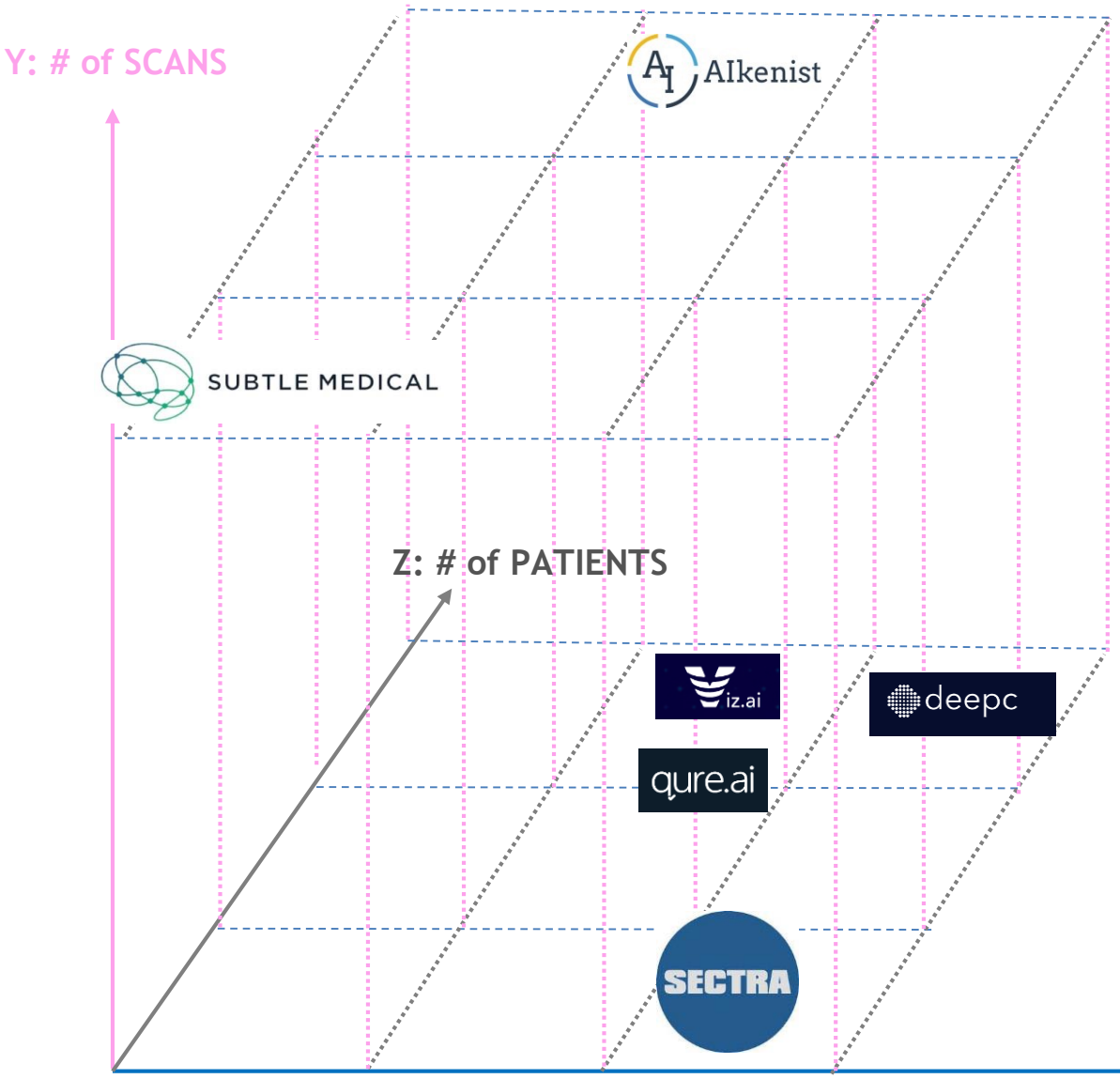
Thank You!

www.aikenist.com

contact@aikenist.com

Medical Imaging made faster and convenient.

Aikenist : Differentiators



Features	Aikenist	Qure	Viz	Spectra	Subtle	DeepC
PACS & RIS with Smart Workflow	✓	✗	✗	✓	✗	✗
AI Analysis	✗	✓	✓	✗	✗	✗
AI Platform to host multiple AI	✓	✗	✗	✗	✗	✓
Scan Acquisition Speed up	✓	✗	✗	✗	✓	✗
Emergency alerting and coordinated care	✓	✓	✓	✗	✗	✗
Patient Queue Management with online/offline booking	✓	✗	✗	✗	✗	✗

Reduces

Patient time, Radiologist time, Scanning time, Physician time, Diagnostic cost

Improves

Patient outcome

Radiology industry evolution is similar to Pathology

A DECADE AGO	TODAY	A DECADE LATER

LAB TESTS (Pathology)

- Underutilized machines
- Unpredictable wait time
- Delays - Manual reports

→

- Significant increase in utilization of machines
- No wait time, collection at home
- Automated reports via mail / WA

IMAGING (Radiology)

- **Underutilized machines**
- **Unpredictable wait time**
- **Delays - Manual reports**

→

- QUICKFLOW
- QUICKSCAN
- QUICKDIAG

Aikenist Quicksuite is ready for a future where customers
(1) Walk in to the scanning
(2) Complete scan in a few mins
(3) Have the report mailed/WA < 1 hour

QuickDiag – MR Brain AI

Fast automatic detection of candidate findings with a sensitivity of 98% and specificity of 78% on infarcts, and 86% and 82% on hemorrhages respectively.

Brain MRI analysis and mark-up of regions of interest and findings tagged for PACS in DICOM and PDF formats.

Fully integrated into Aikenist QuickDiag for seamless workflows.

Modality

MRI

Body part

Brain

Clinical scenario

Emergency

Routine

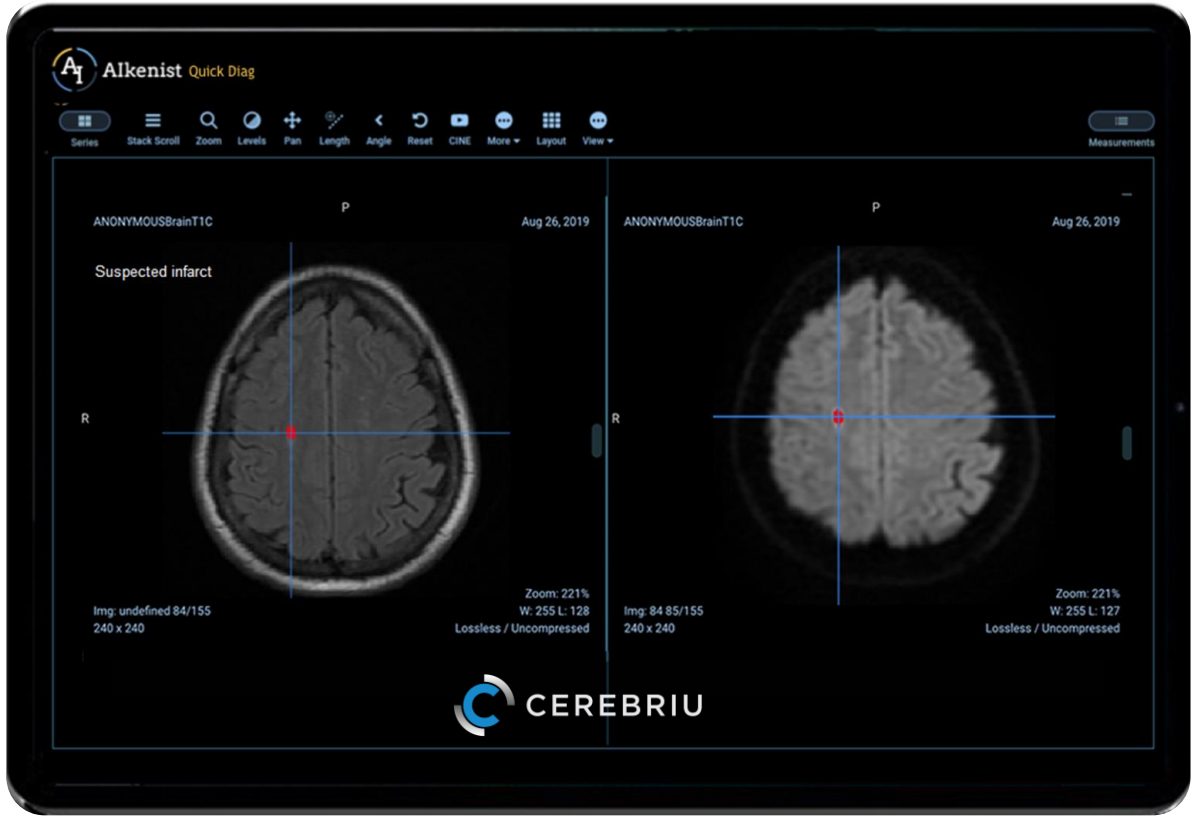
Candidate findings

Infarcts

Intracranial tumors

Intracranial hemorrhages

Cerebriu Brain (CE-marked). Investigational use in US. Not for clinical use in US.



CEREBRIU | brain for MRI is delivered by Aikenist QuickDiag for faster reporting and triage of critical patients.

QuickDiag - Stroke

Fast automatic detection of suspected infarcts with a sensitivity of 98% and specificity of 78%.

Automatic measure of infarct core volume at mean dice of 0.72 ± 0.18 pre-thrombectory and 0.85 ± 0.12 post-thrombectomy

Automatic FLAIR-DWI mismatch ratio measured at mean dice of 0.8 ± 0.14.

Modality

MRI

Body part

Brain

Clinical scenario

Emergency

Candidate findings

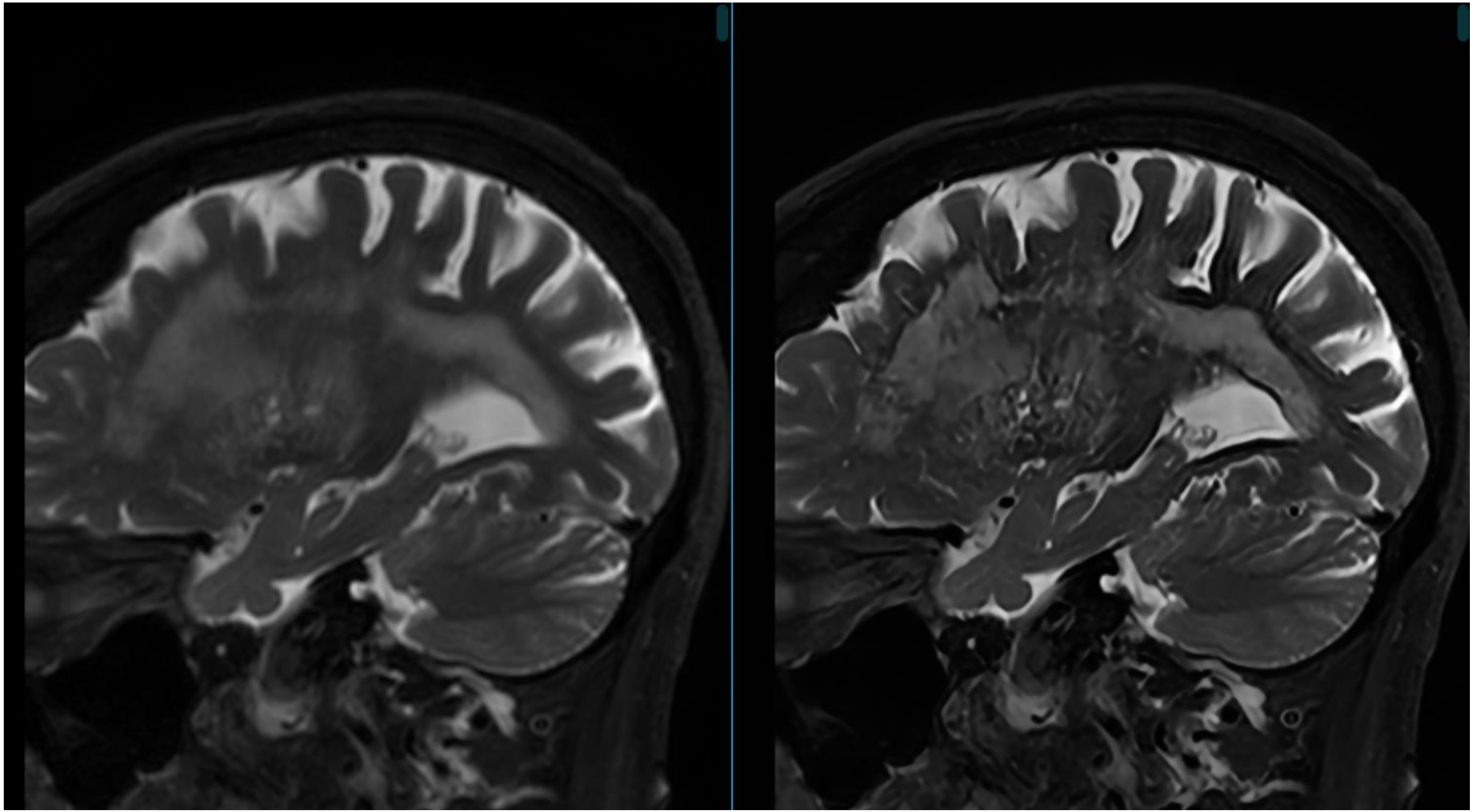
Infarcts

Infarct core volume

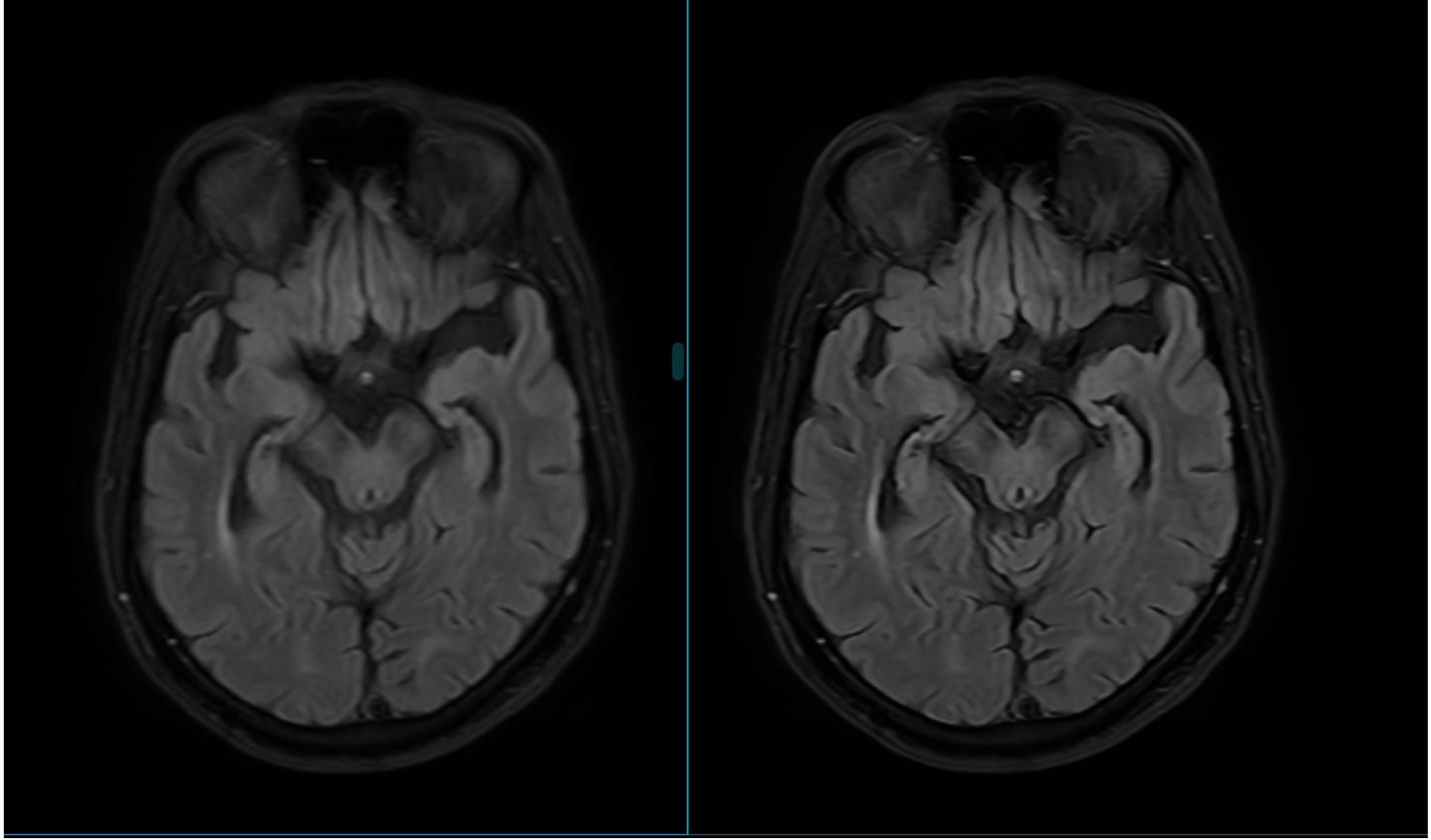
FLAIR-DWI mismatch

CEREBRIU stroke insights brain MRI delivered by Aikenist QuickDiag for faster, more efficient and confident stroke treatment decision.

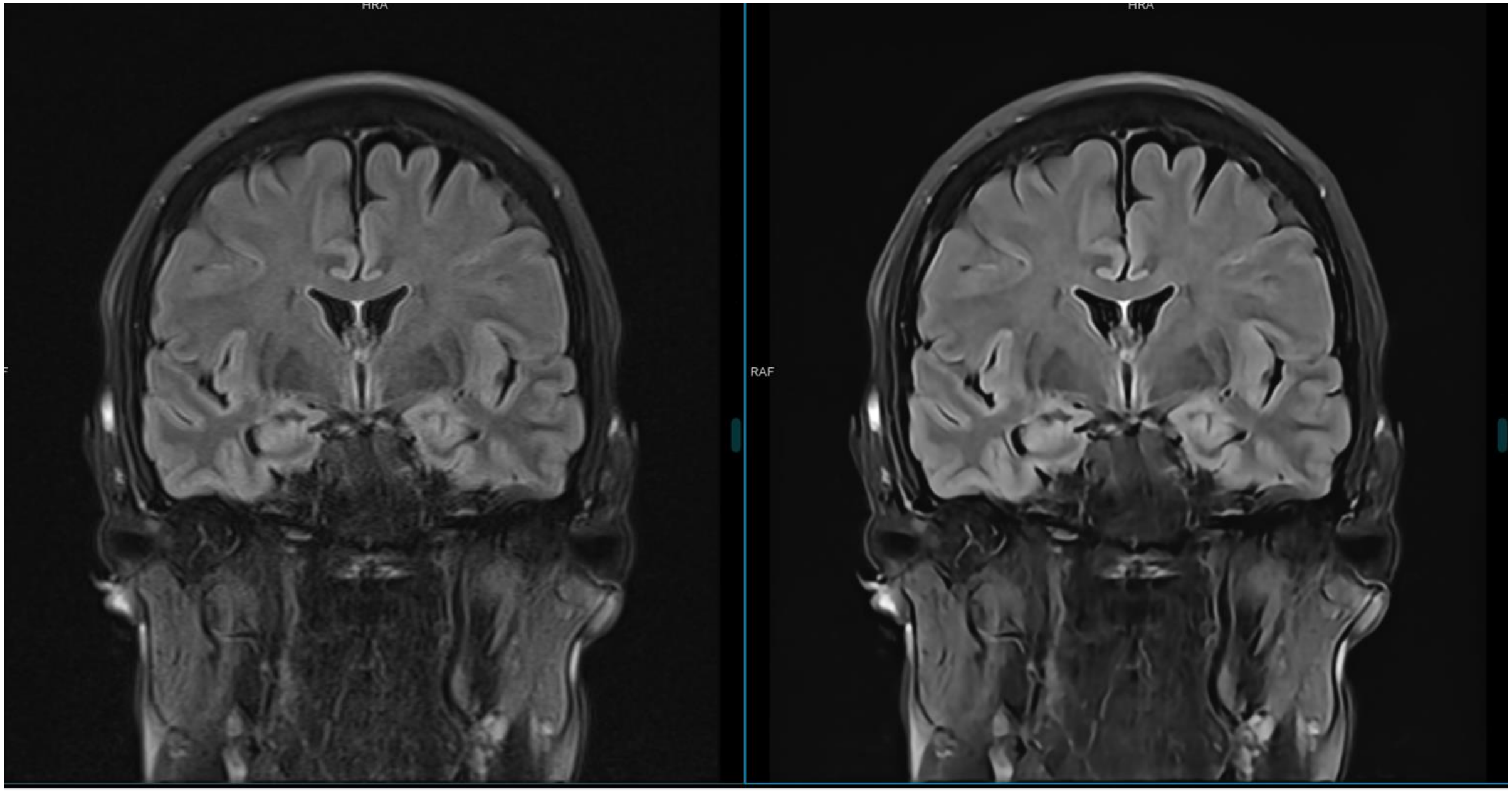
Cerebriu Stroke insights is for Investigational use only. Not for clinical use in US.



T2 sagittal showing better tissue contrast, white matter and surrounding perivascular spaces in the aged brain



Axial Flair image of the brain showing better tissue contrast with more detailing of the hippocampus regions

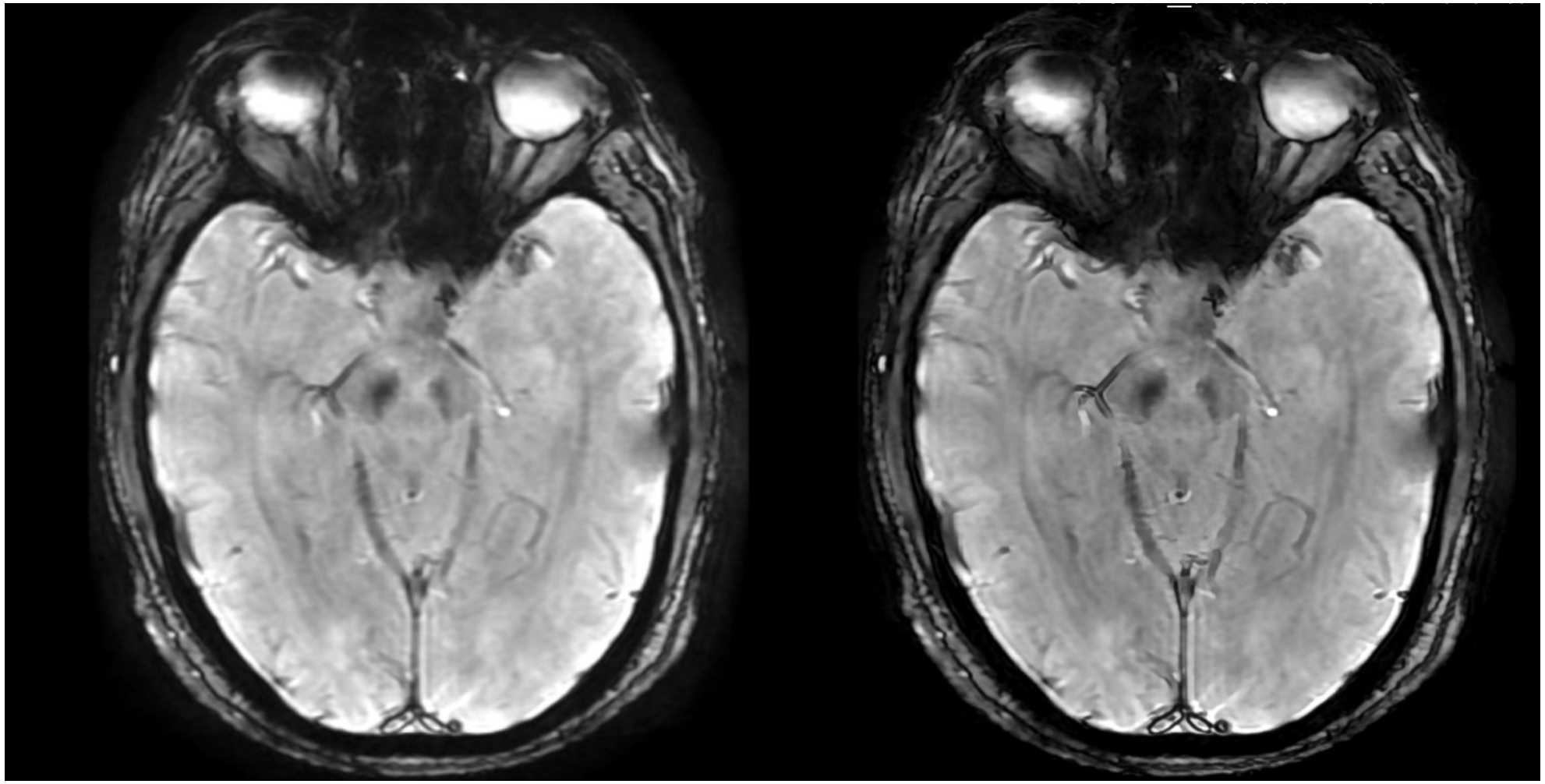


FLAIR Coronal showing better tissue contrast with more importance to the temporal region

Quickscan examples

AIkenist

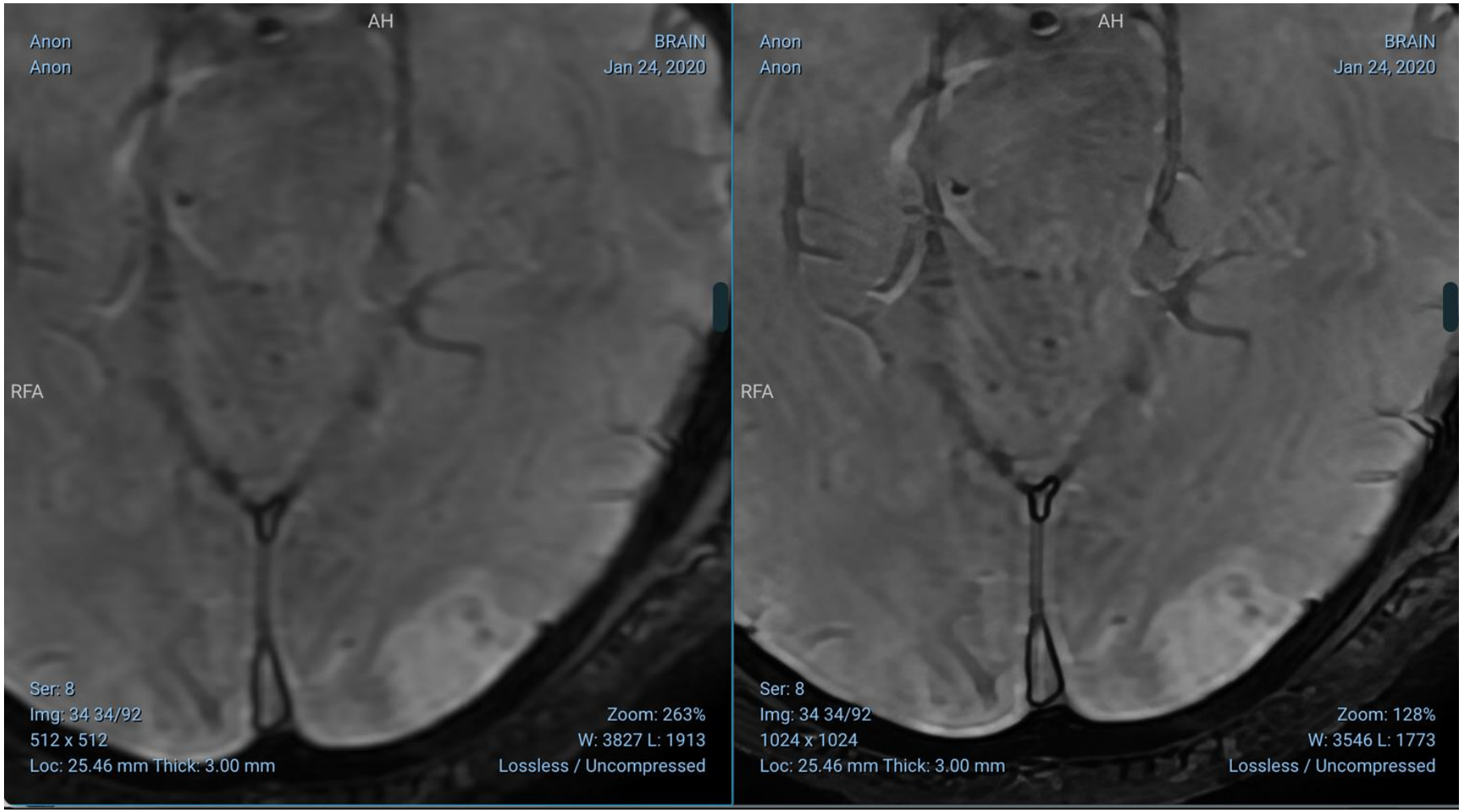
Aiken QuickScan



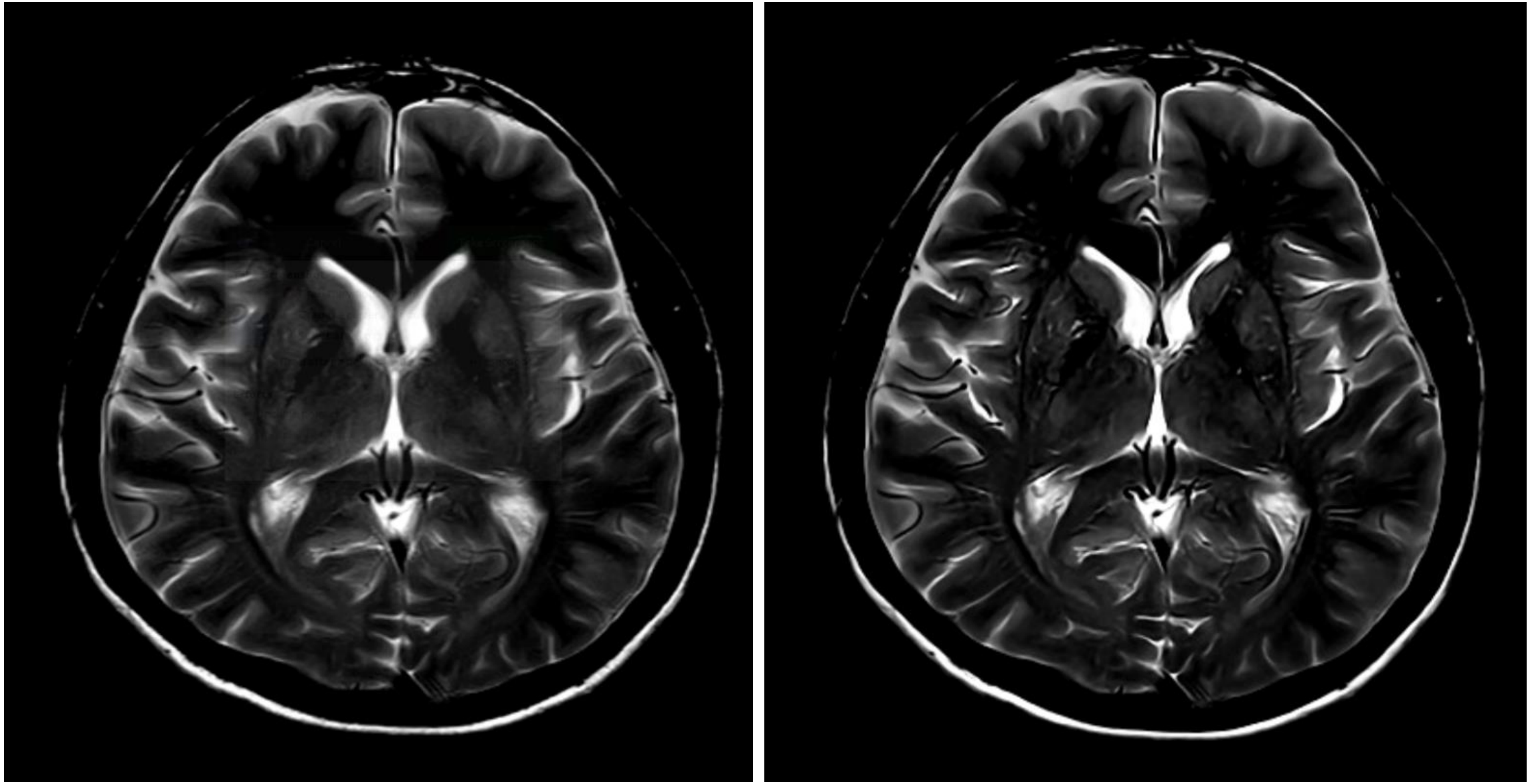
Brain GRE Axial zoomed view with better contrast and deblurring. Mid brain appears better and better vessel margins

Quickscan examples

Aiken QuickScan

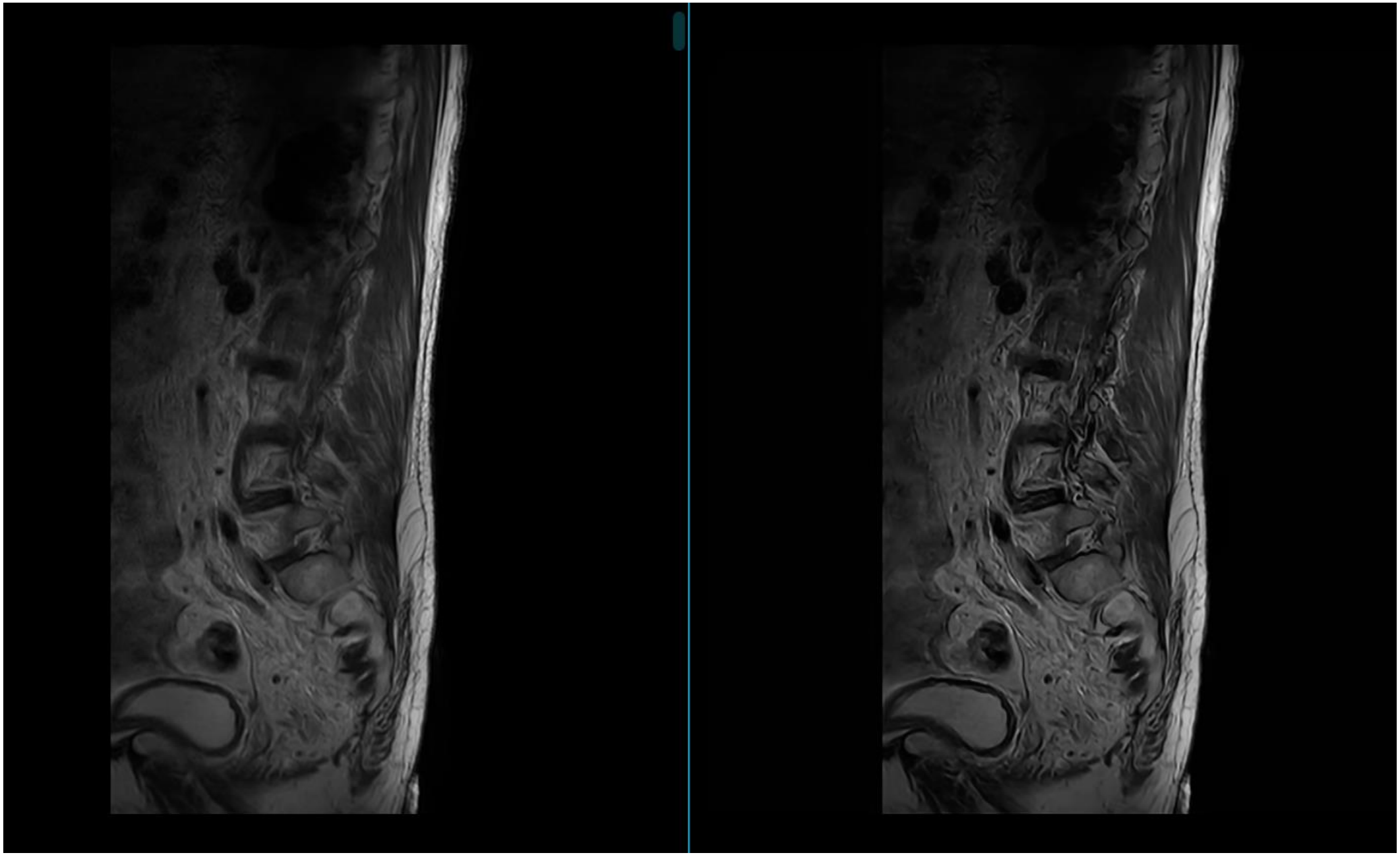


Brain Axial zoomed view better contrast and deblurring. The area of pathology and left occipital lobe looks better in Quickscan

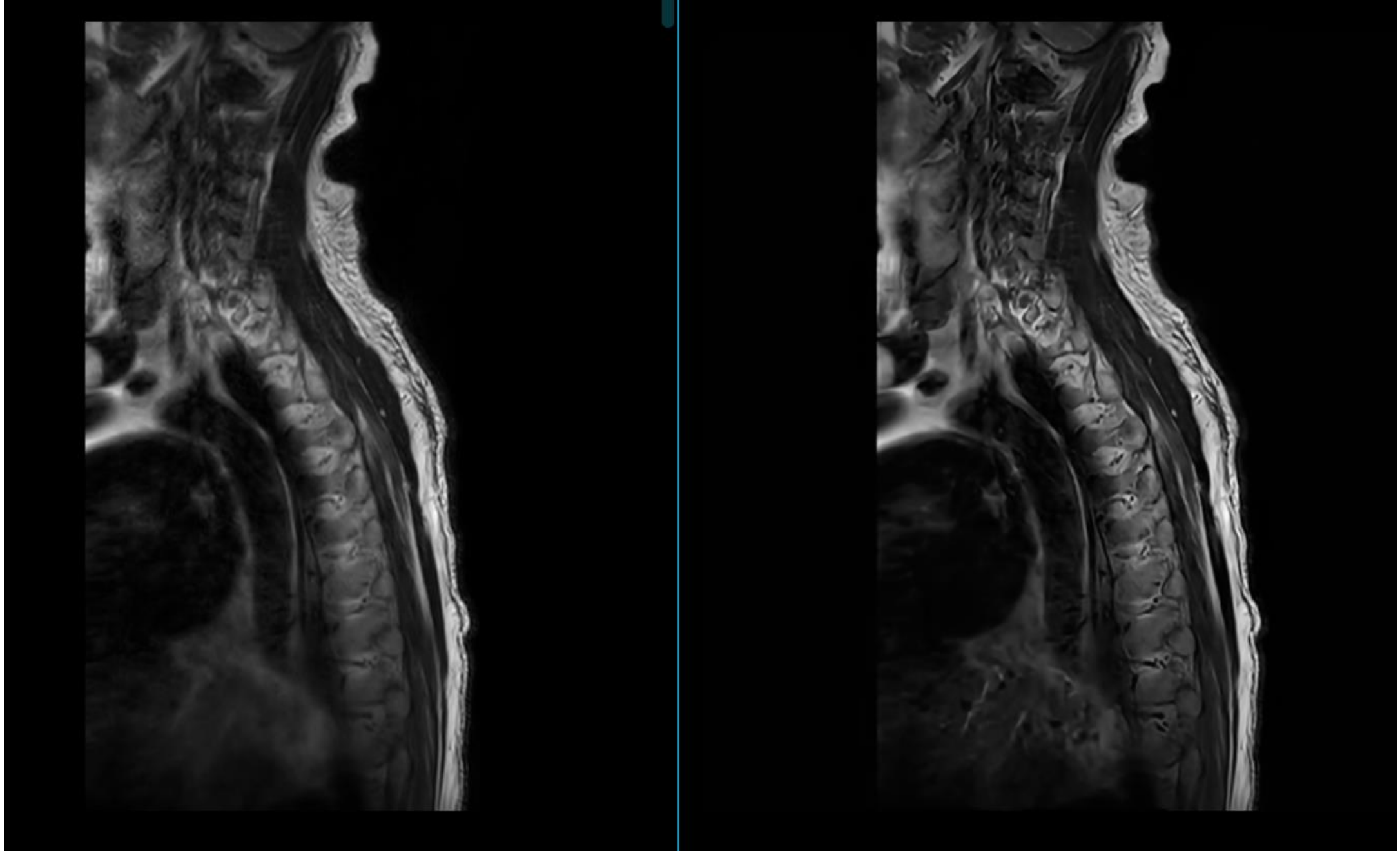


Axial T2 Brain showing better tissue contrast, vascular margins and peri vascular spaces

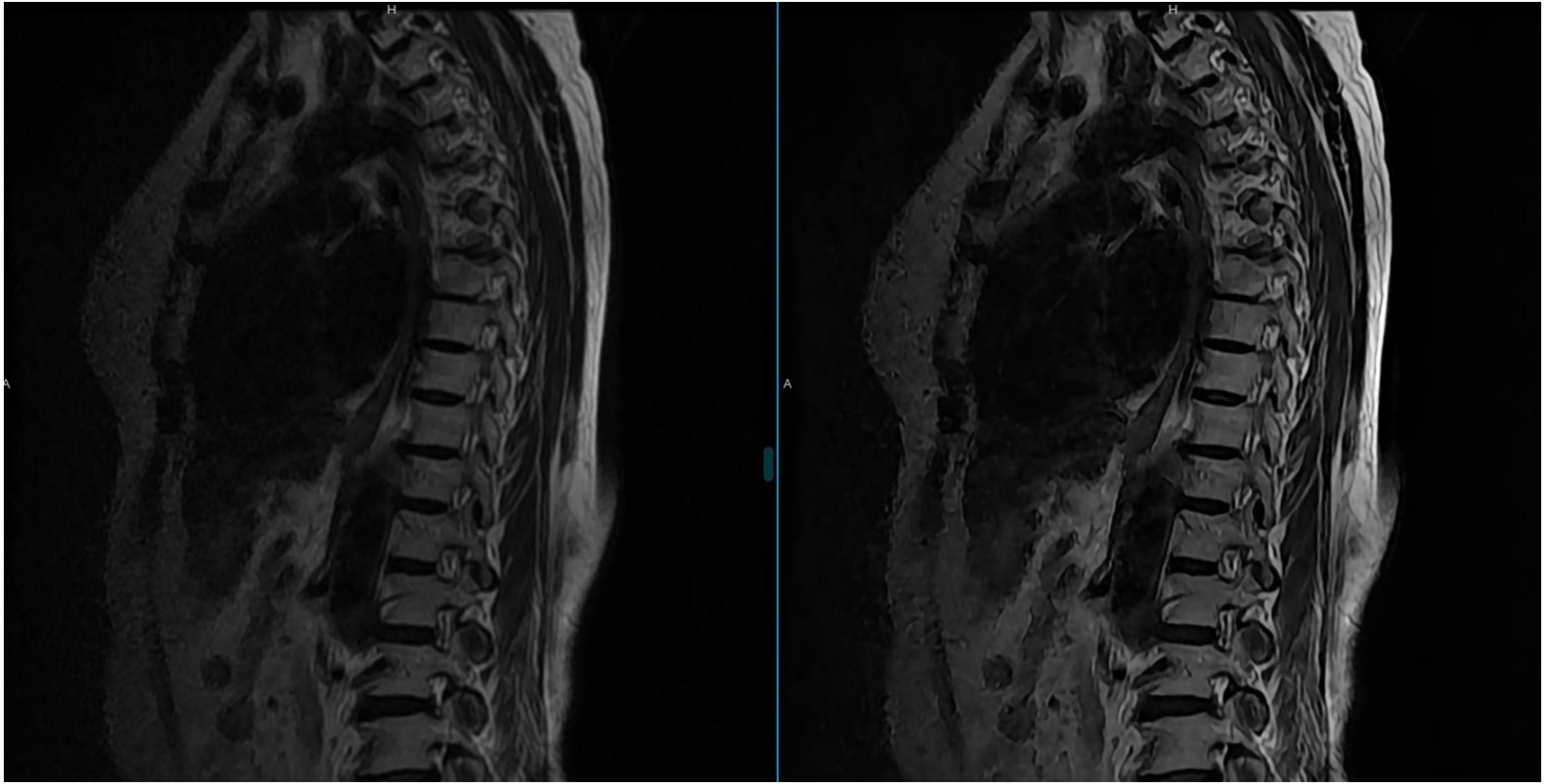
T2 sagittal spine. Better bone marrow signals with detailing and pathologies in the intervertebral disc



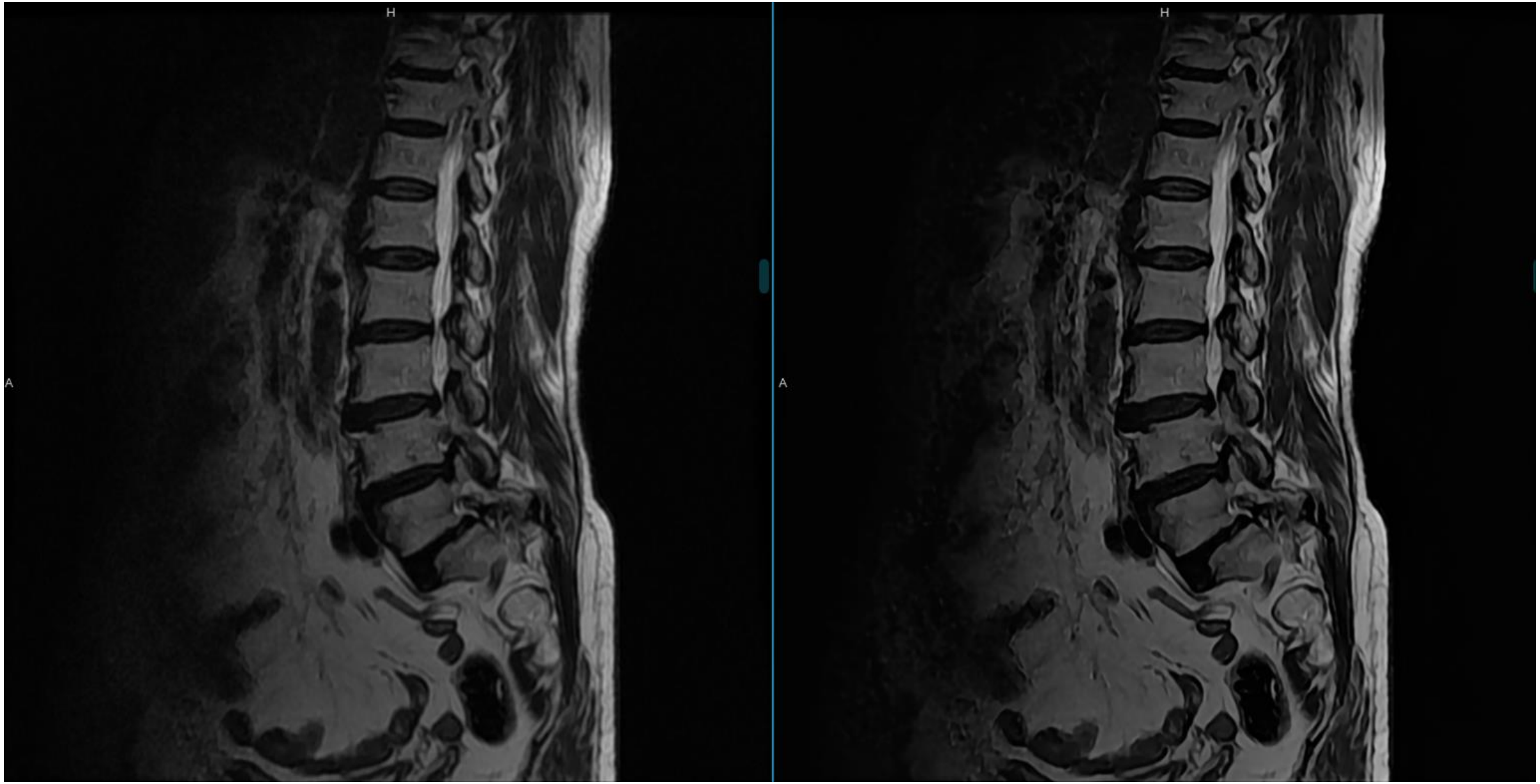
T2 sagittal spine. Better detailing of the posterior spinal muscles and presacral fat



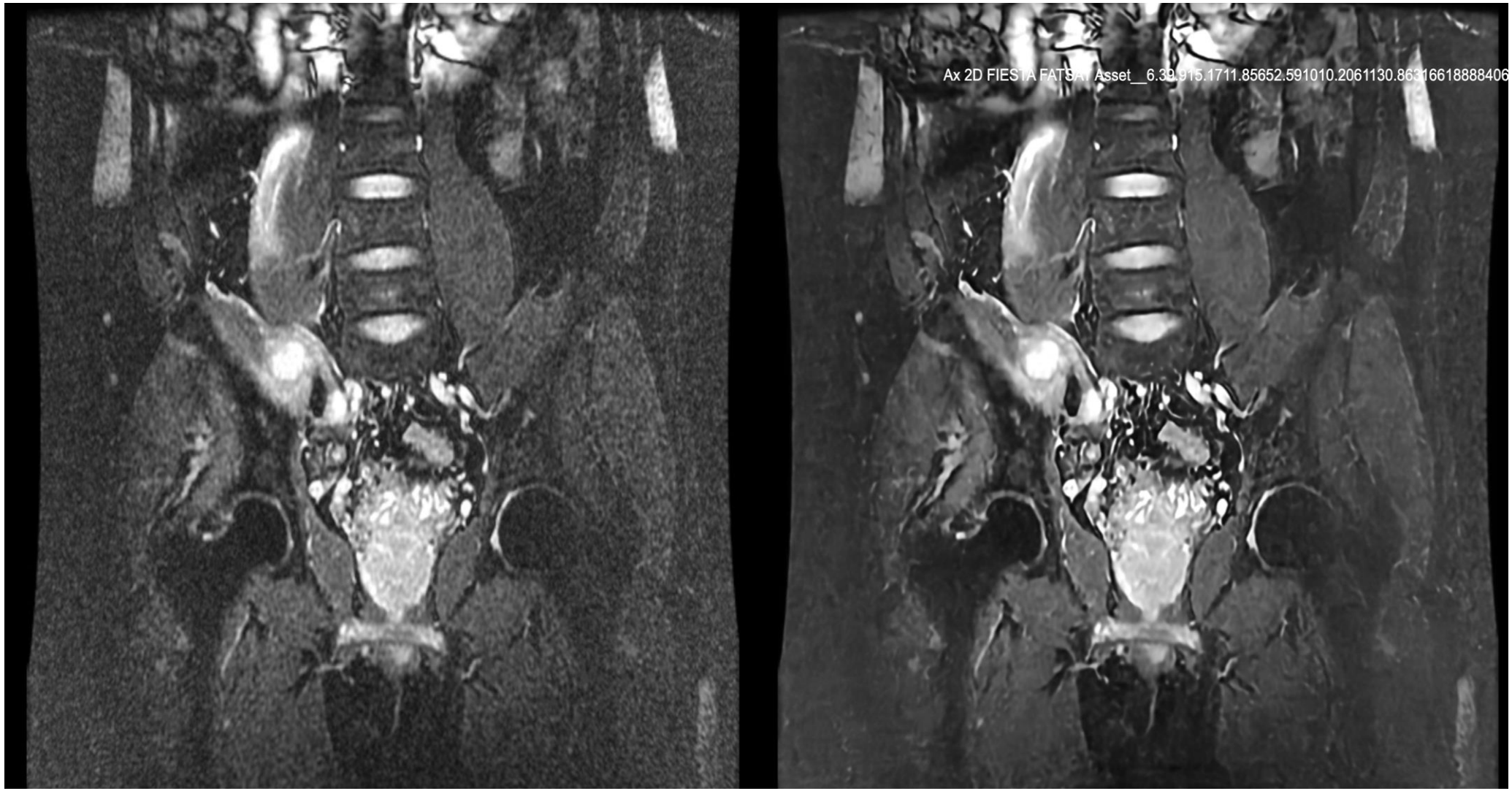
T2 sagittal c-spine covering arch of aorta which has better margins than the source image. Detailing of the spine and posterior spine muscles



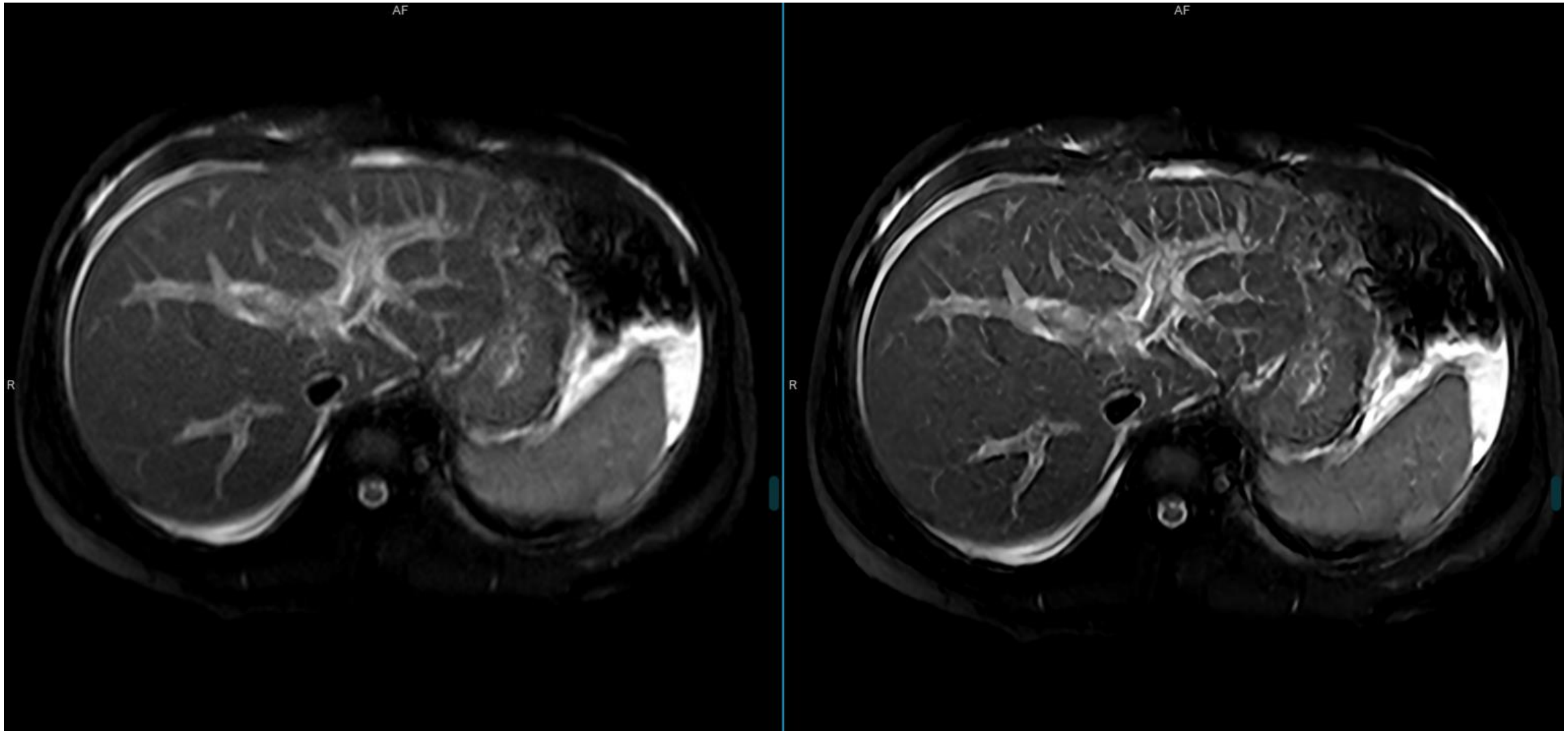
T2 Sagiital with better bone marrow signals and muscle plains



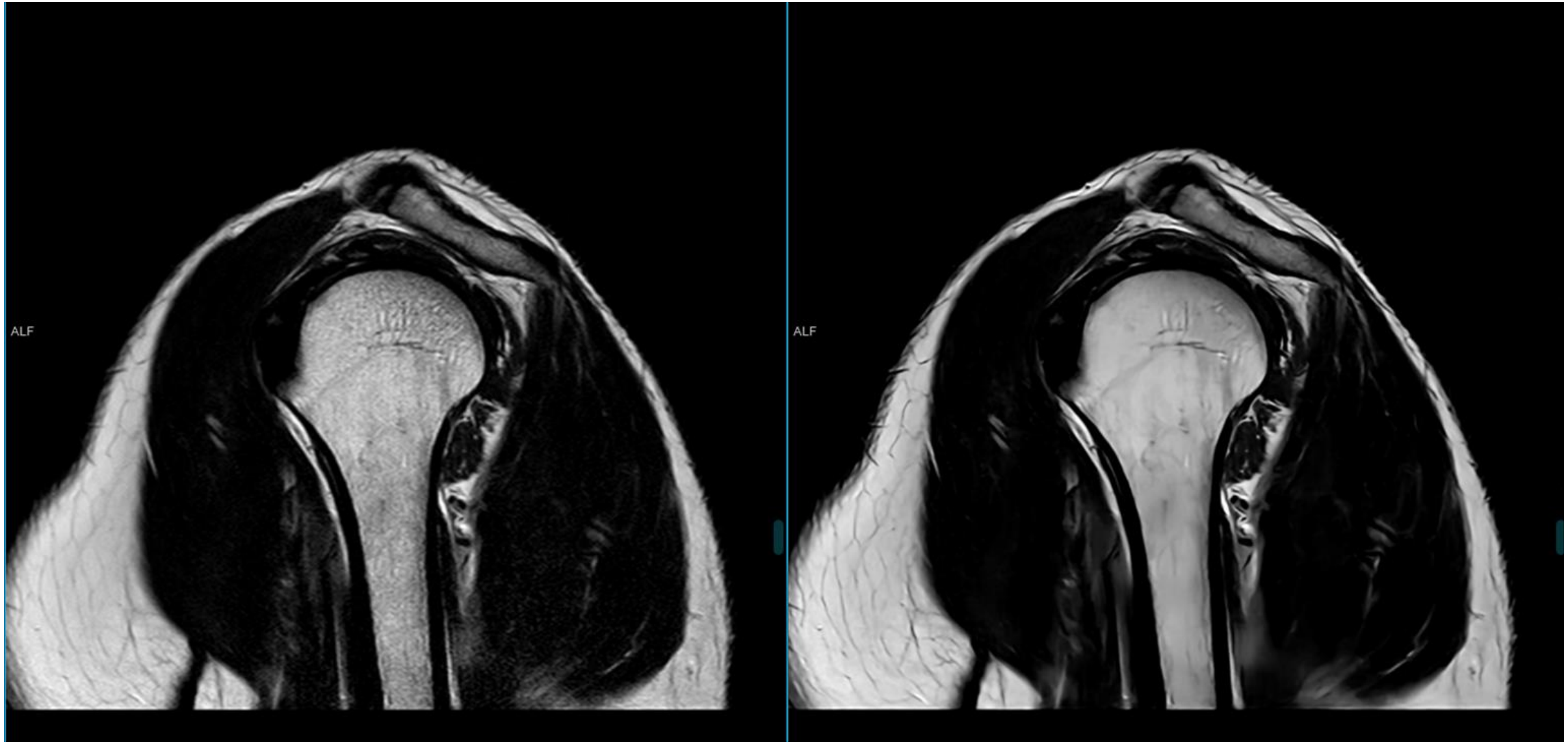
Degenerated T2 lumbard spine showing better disk protrusions, foramina and bone marrow signals



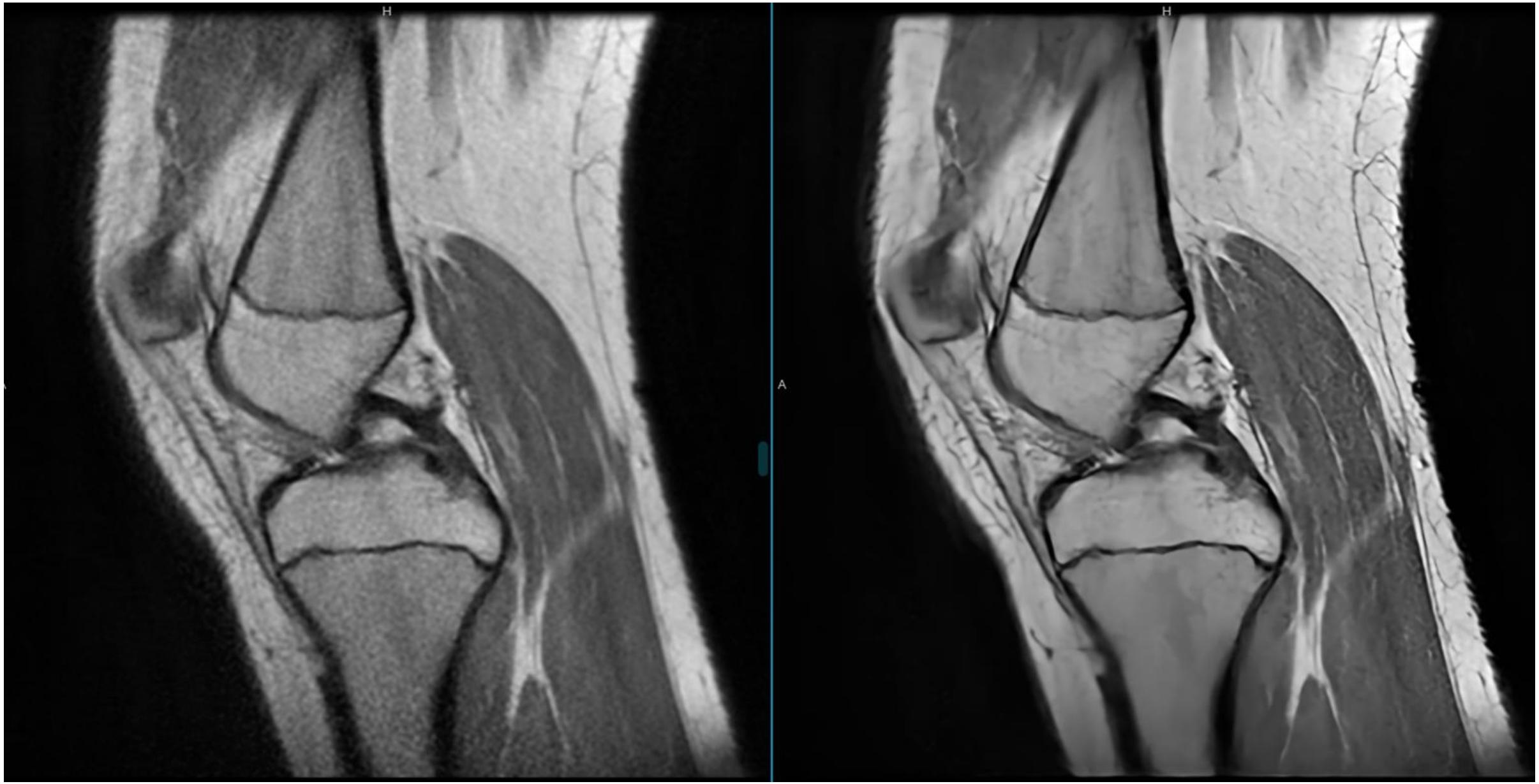
Coronal T2 FS image showing better tissue contrast with detailed margins of the collection in the right iiopsoas muscle



Axial T2 abdomen showing sharp vascular detailing, Better hepatic signals



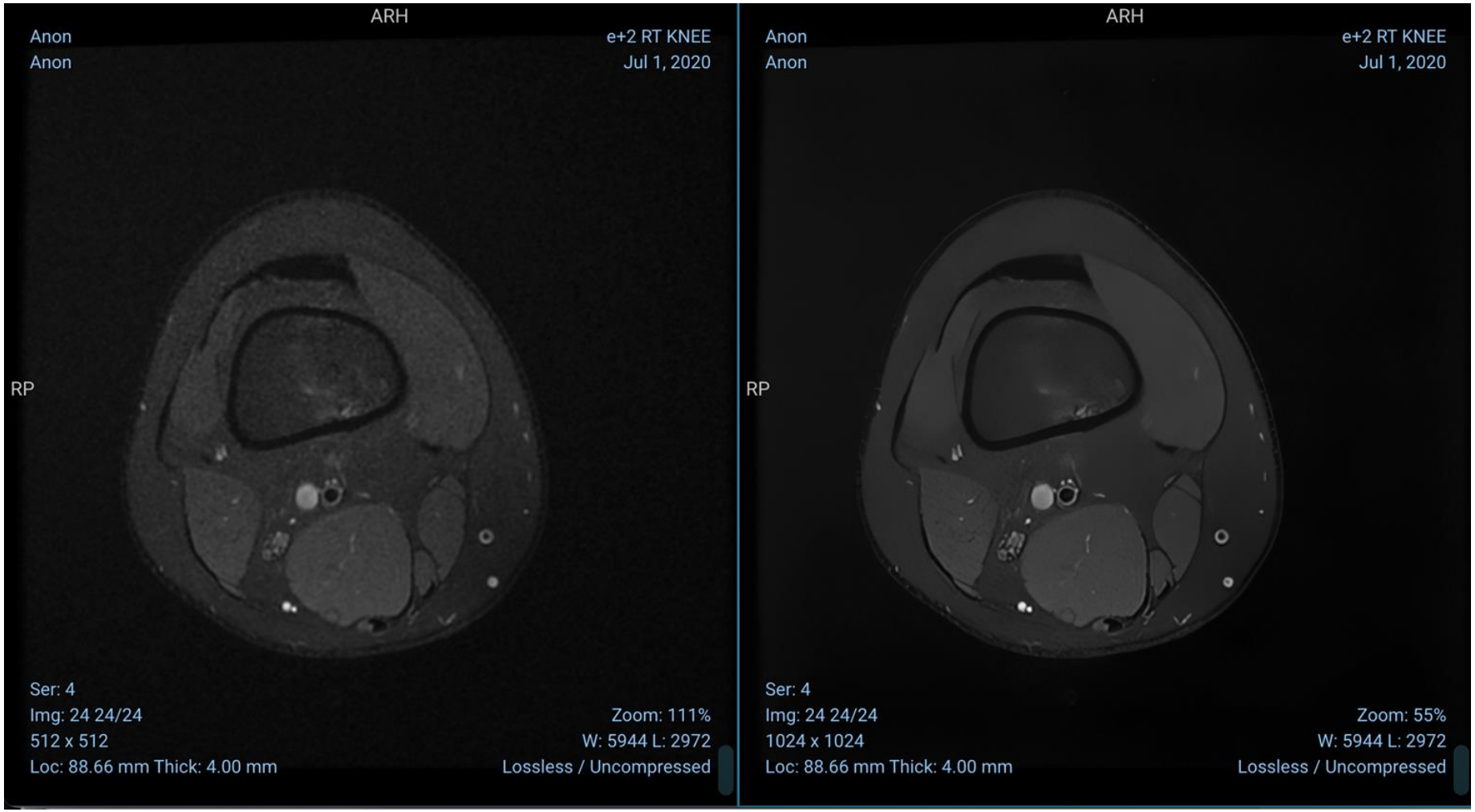
T2 Sagittal shoulder with better tissue contrast and muscle and fat planes



T1 Sagittal knee joined showing denoising of the bone signals with better muscle anatomy

Quickscan examples

Aiken QuickScan



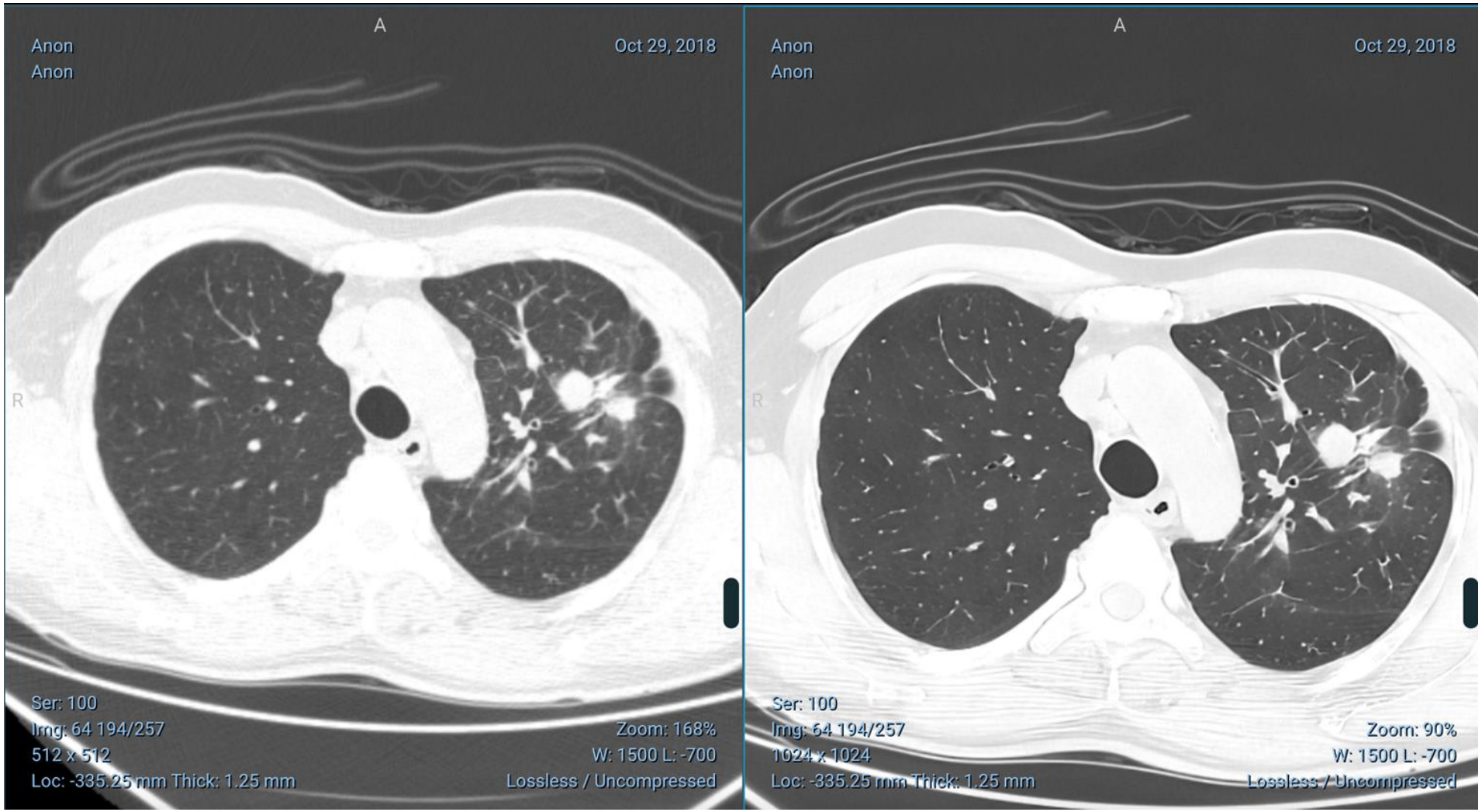
Knee Axial scan noise reduction, Bone edema is better seen

T1 Coronal ankle with better muscle anatomy

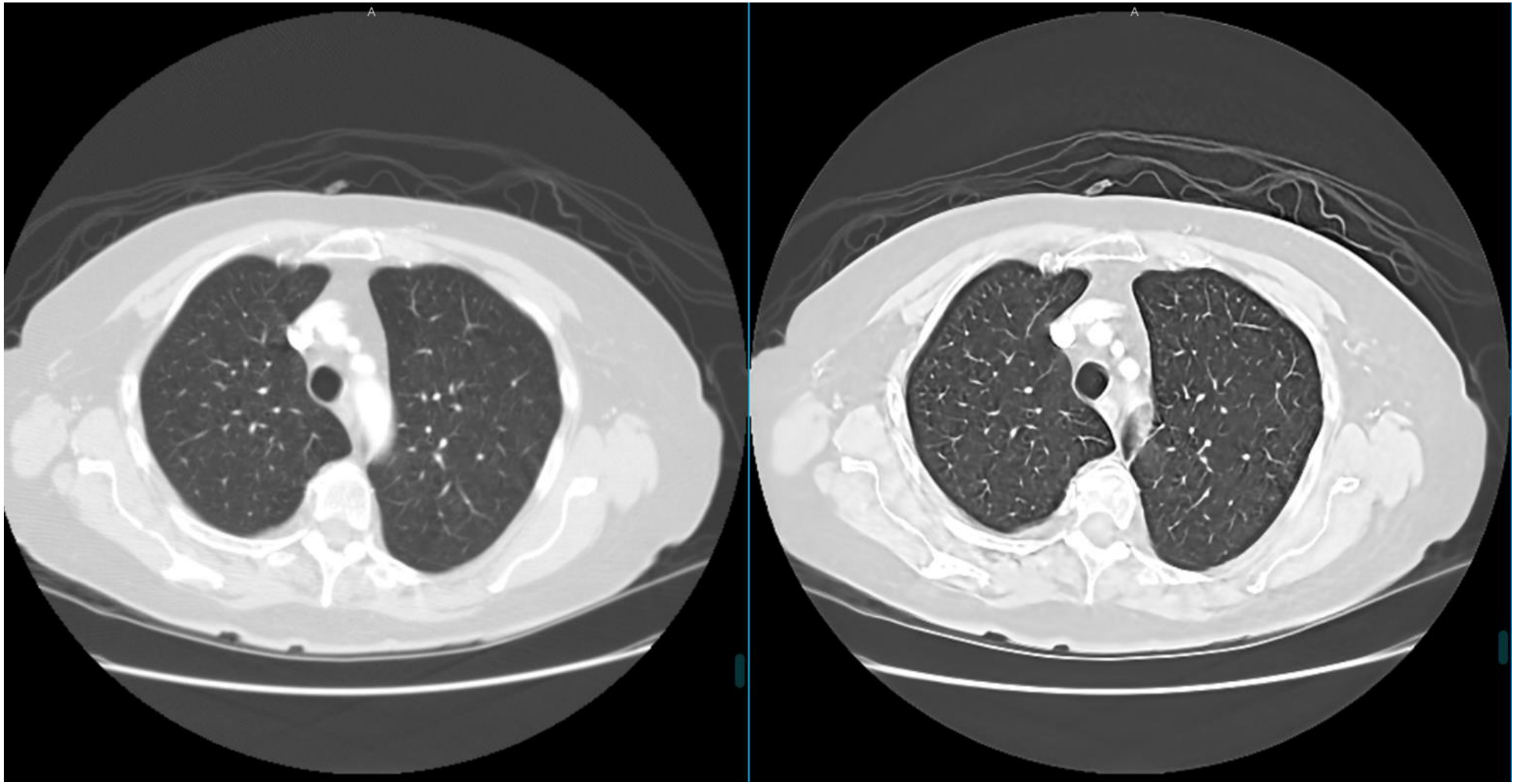
Low Dose CT

Aiken QuickScan output

AIkenist



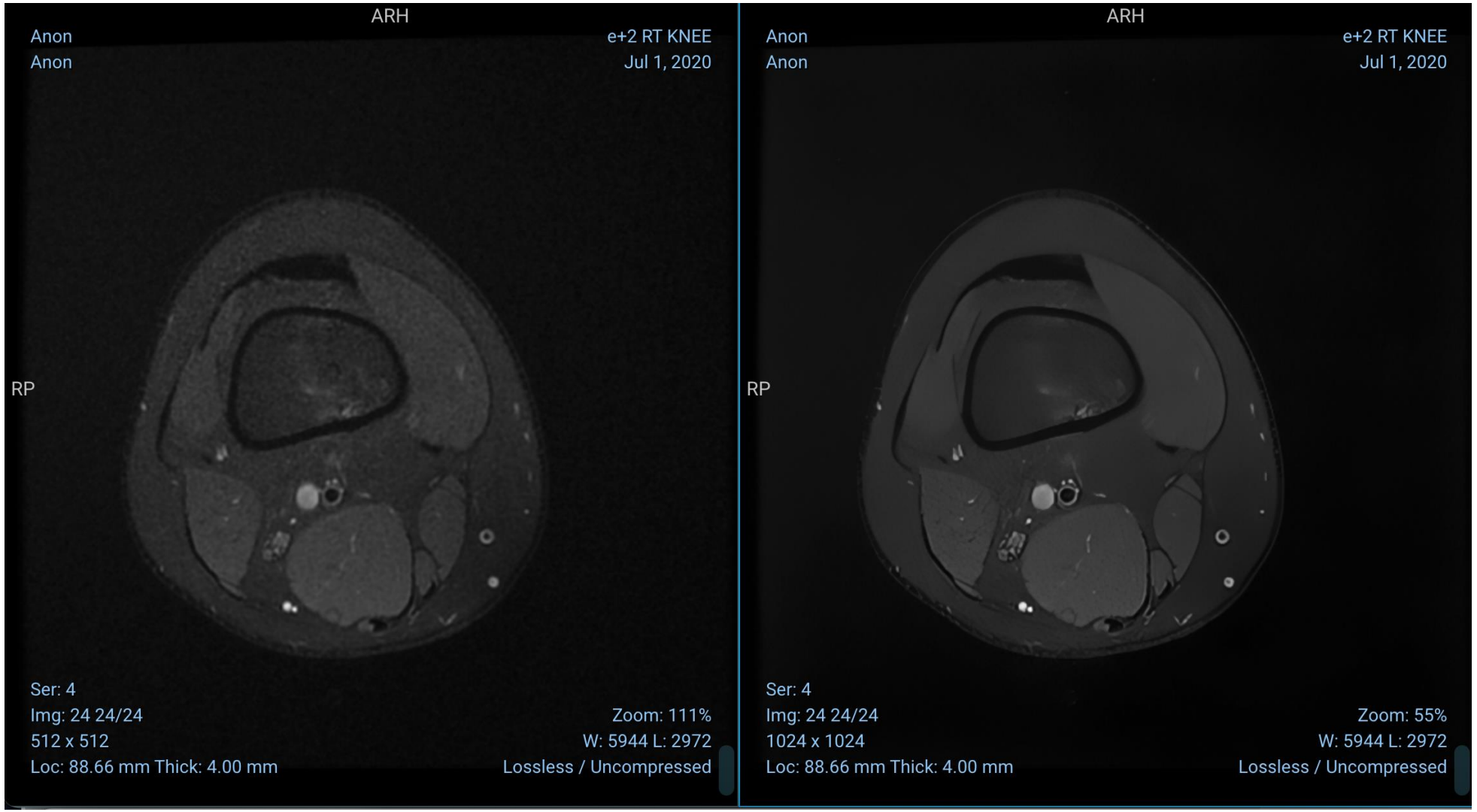
Sharpened Image quality and Denoising. Clear lung parenchyma and better visualization of the pulmonary nodules and fibrosis in the left lung



Contrast enhanced CT Axial lung study with better lung parenchyma and peripheral pulmonary vessels

Quickscan examples

Aiken QuickScan

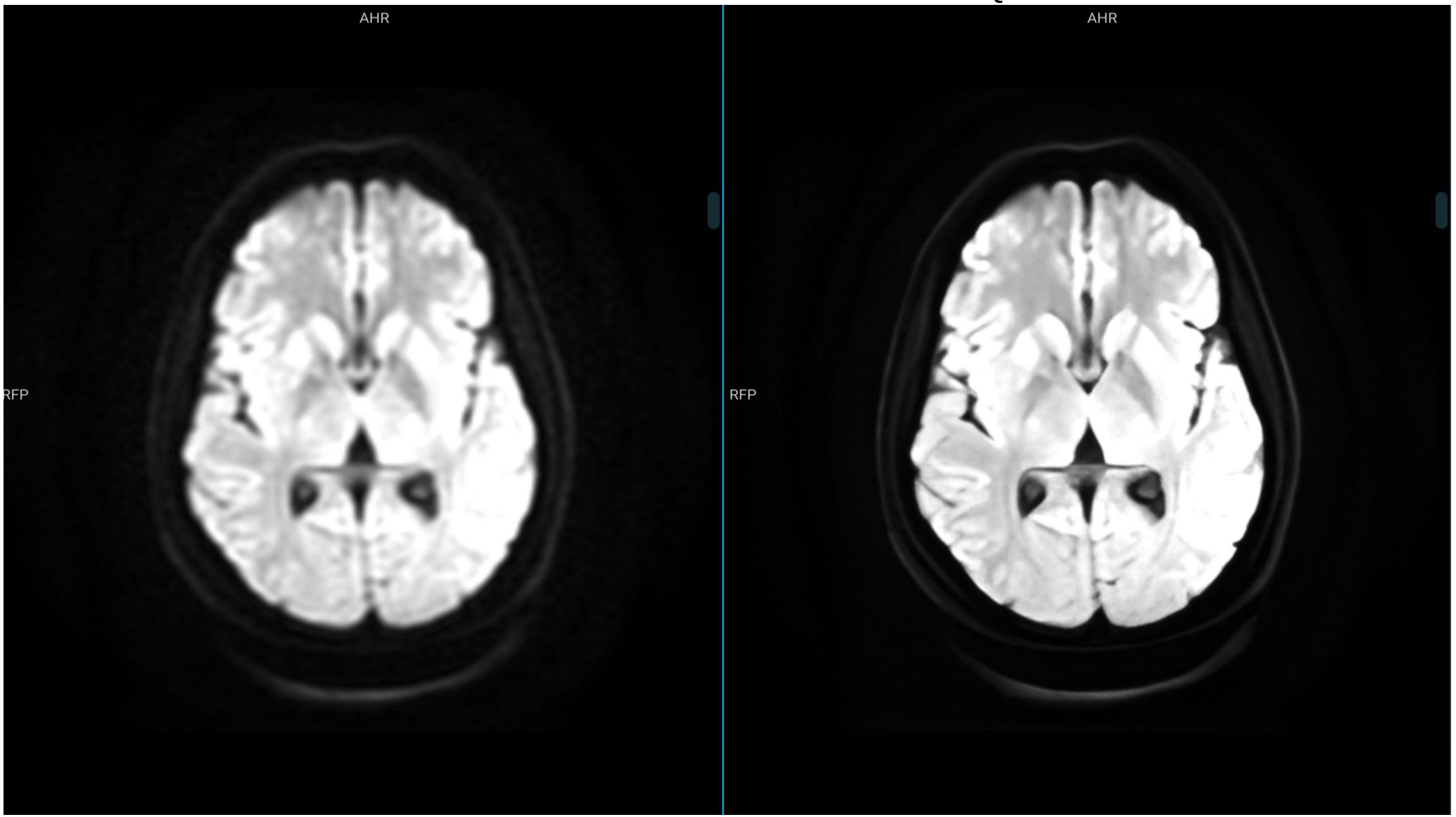


Knee Axial scan noise reduction

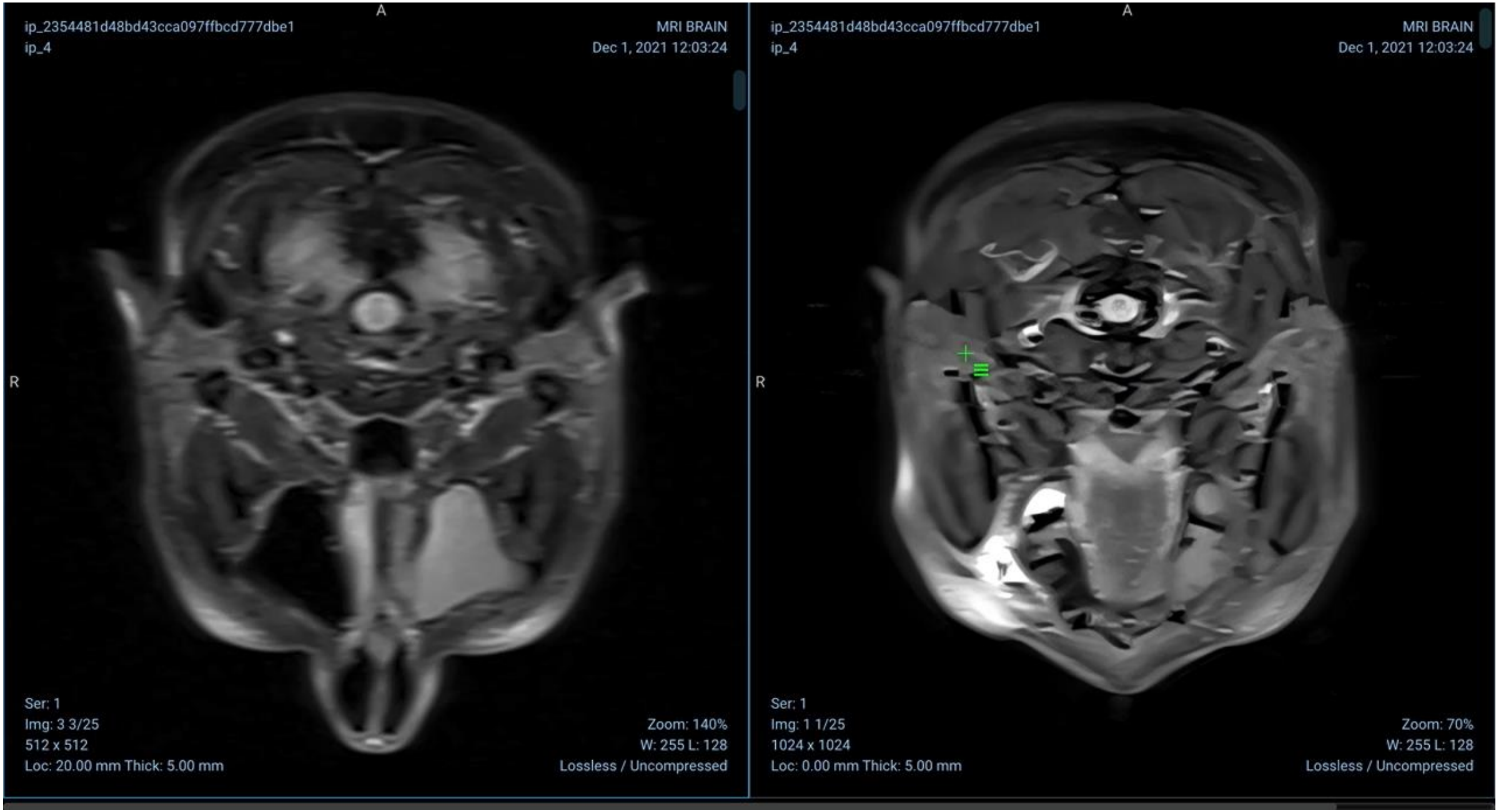
AIkenist

Scans from MRI/CT

Aiken QuickScan

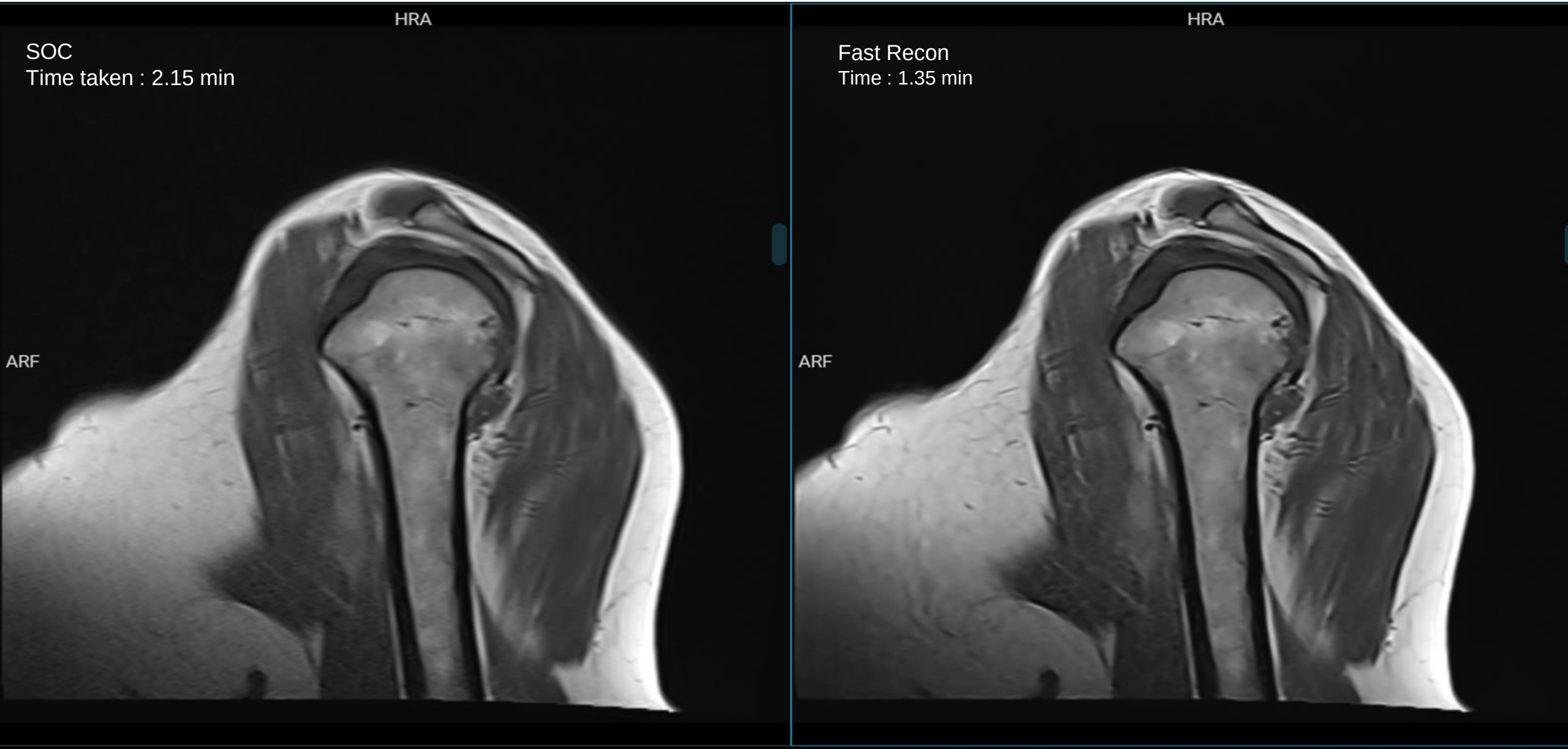


Sharpened Image quality


A
ip_2354481d48bd43cca097ffbcd777dbe1
ip_4
MRI BRAIN
Dec 1, 2021 12:03:24
R
Ser: 1
Img: 3 3/25
512 x 512
Loc: 20.00 mm Thick: 5.00 mm
Zoom: 140%
W: 255 L: 128
Lossless / Uncompressed
A
ip_2354481d48bd43cca097ffbcd777dbe1
ip_4
MRI BRAIN
Dec 1, 2021 12:03:24
R
Ser: 1
Img: 1 1/25
1024 x 1024
Loc: 0.00 mm Thick: 5.00 mm
Zoom: 70%
W: 255 L: 128
Lossless / Uncompressed

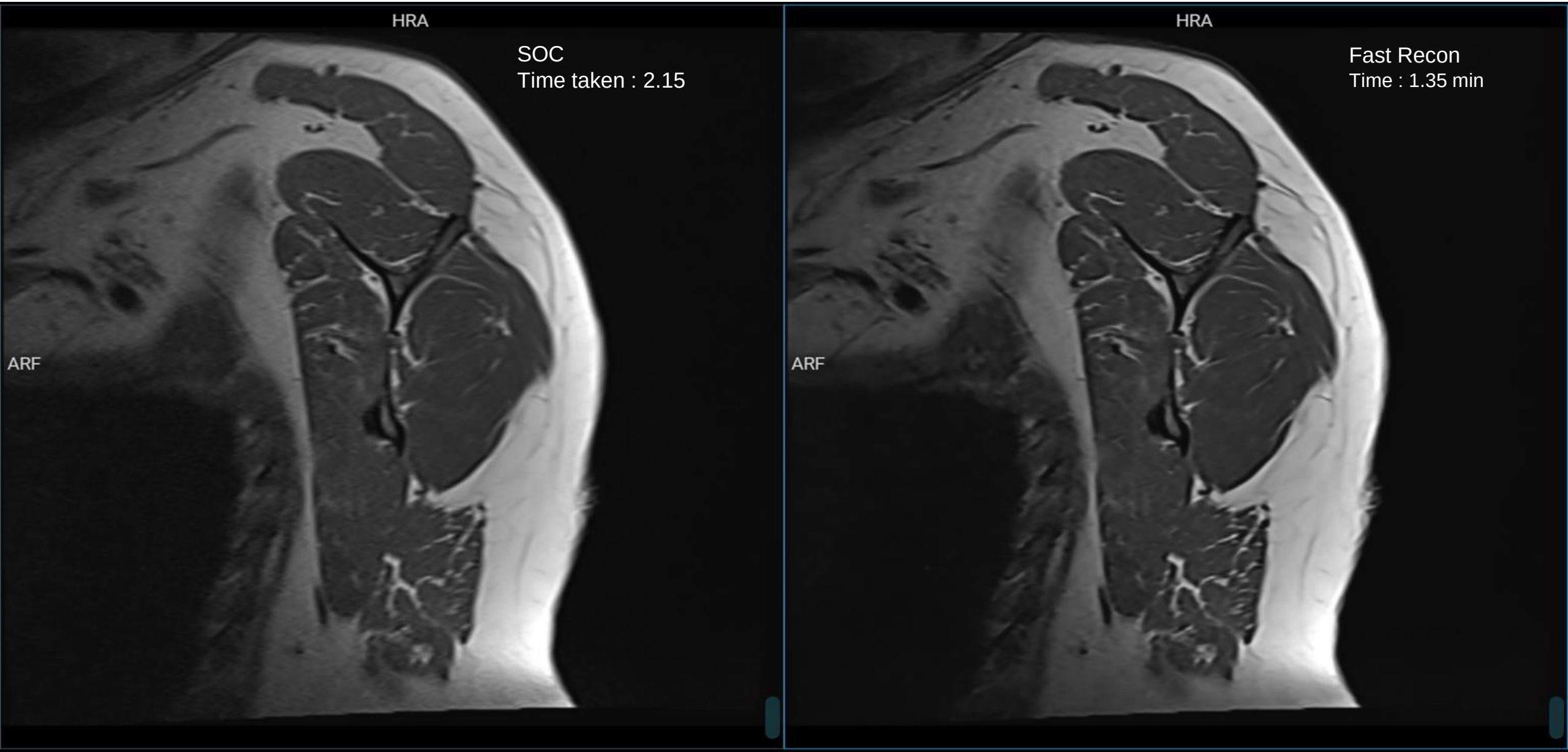
(30% time reduction)

Scans (SOC & fast) are taken at different time



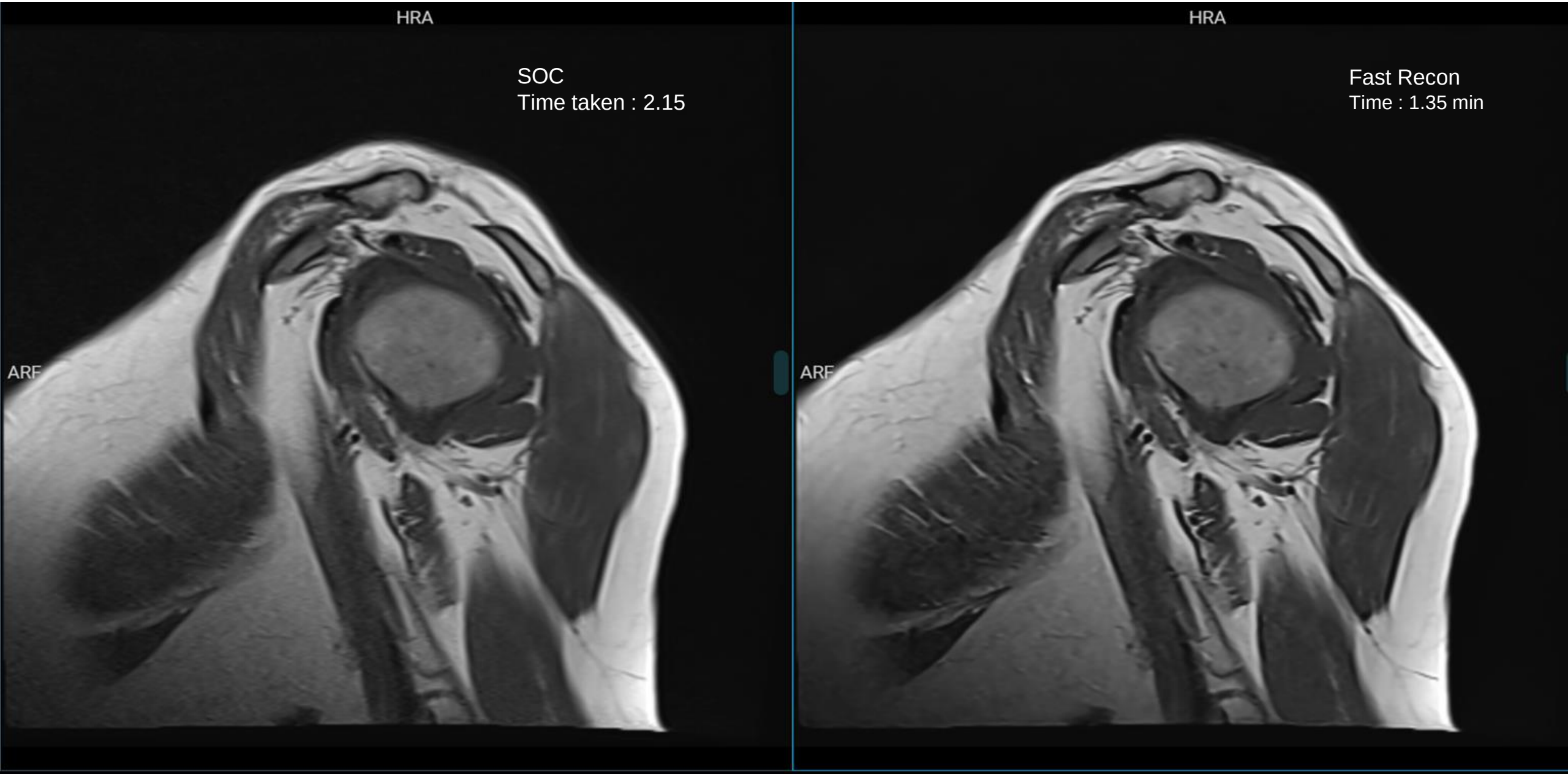
(30% time reduction)

Scans (SOC & fast) are taken at different time



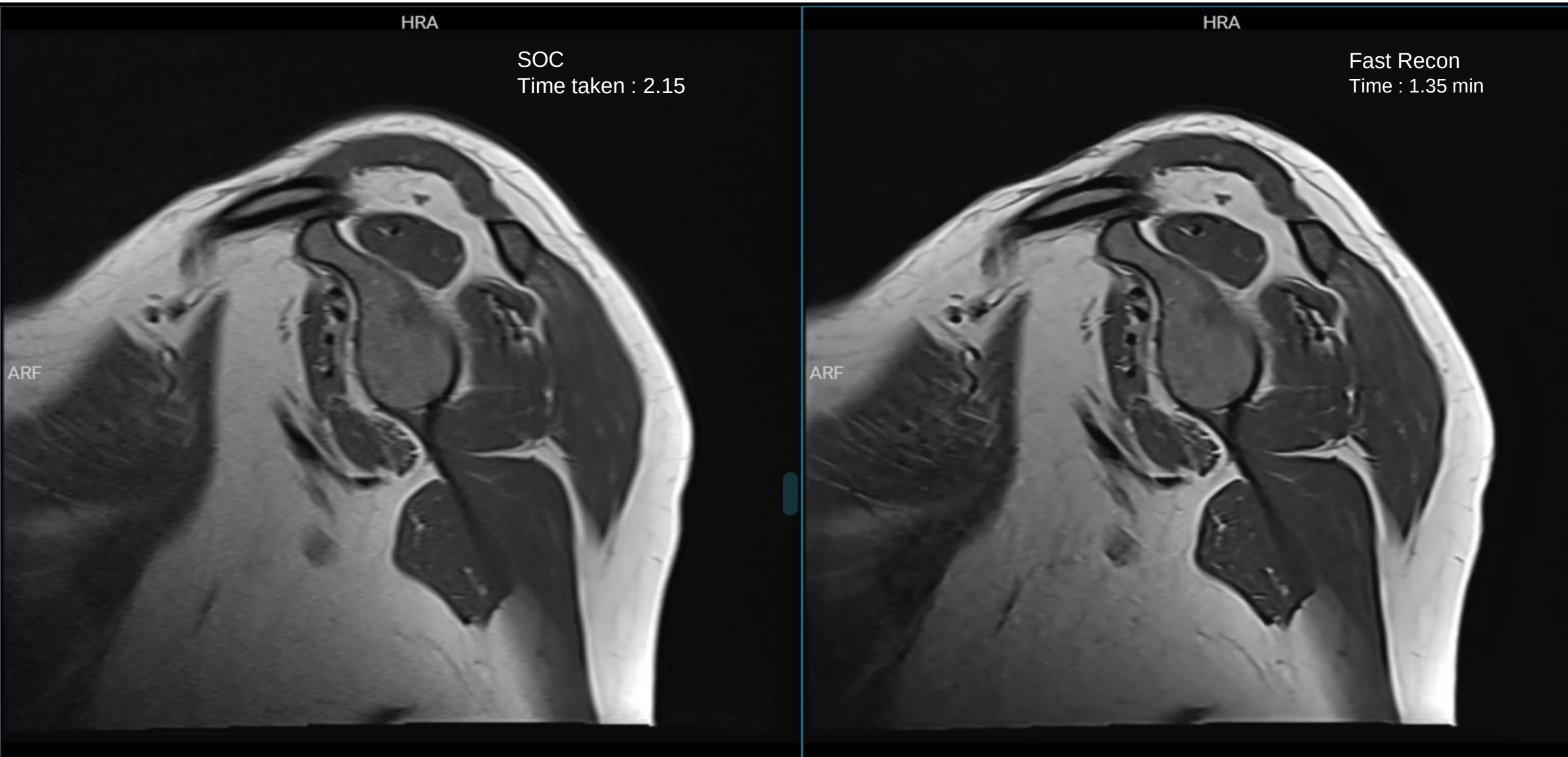
(30% time reduction)

Scans (SOC & fast) are taken at different time



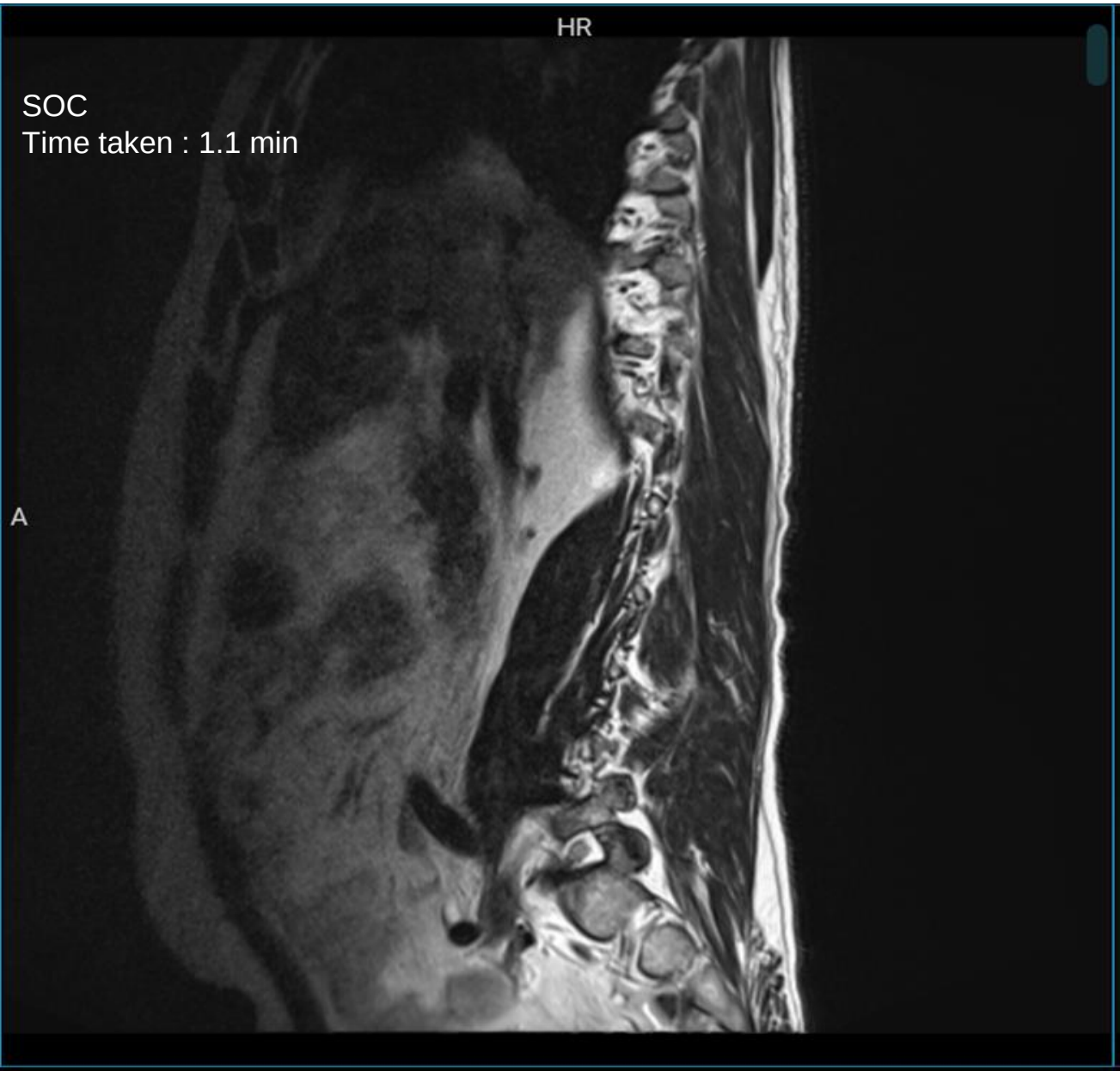
(30% time reduction)

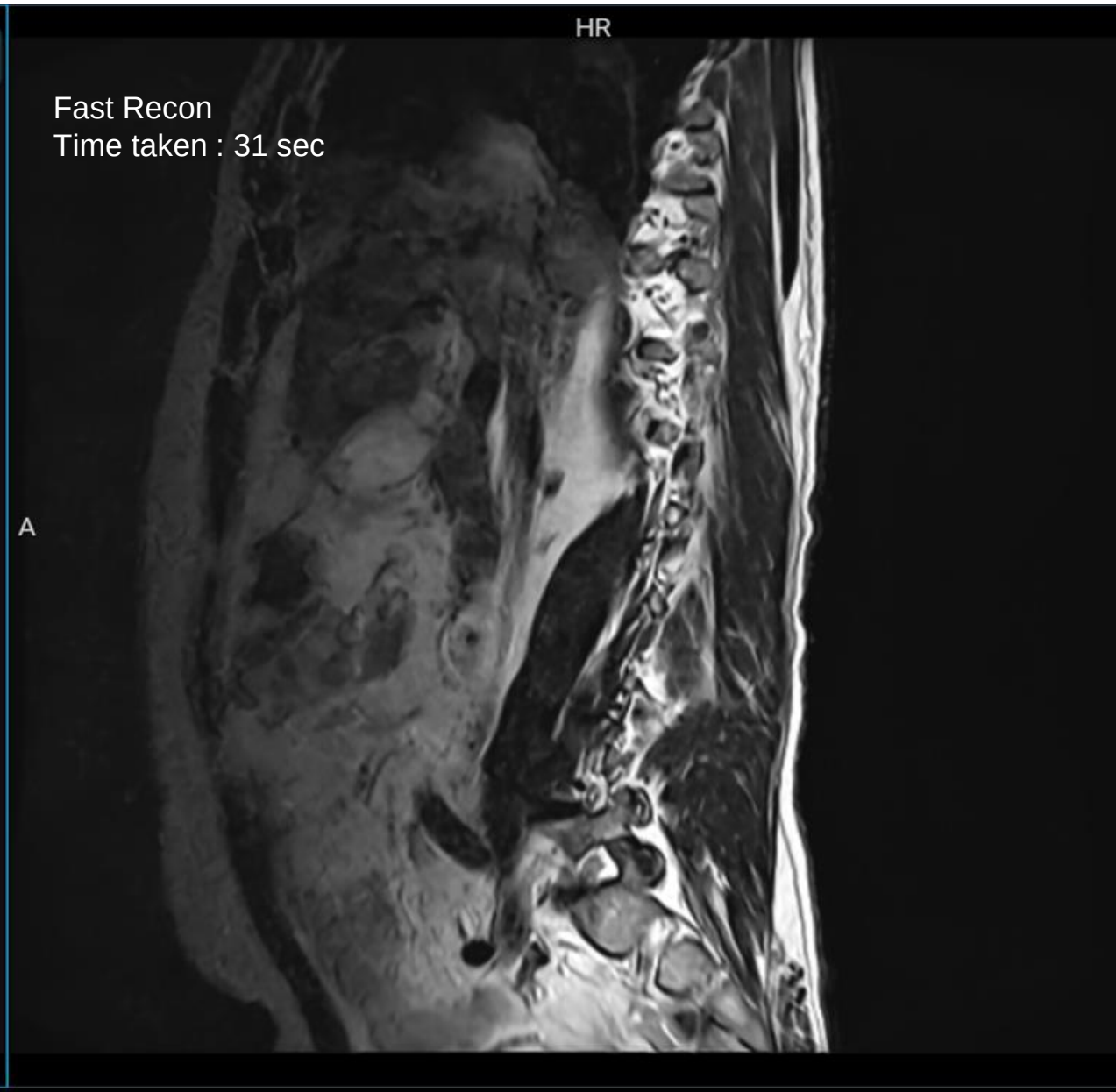
Scans (SOC & fast) are taken at different time



(50% time reduction)

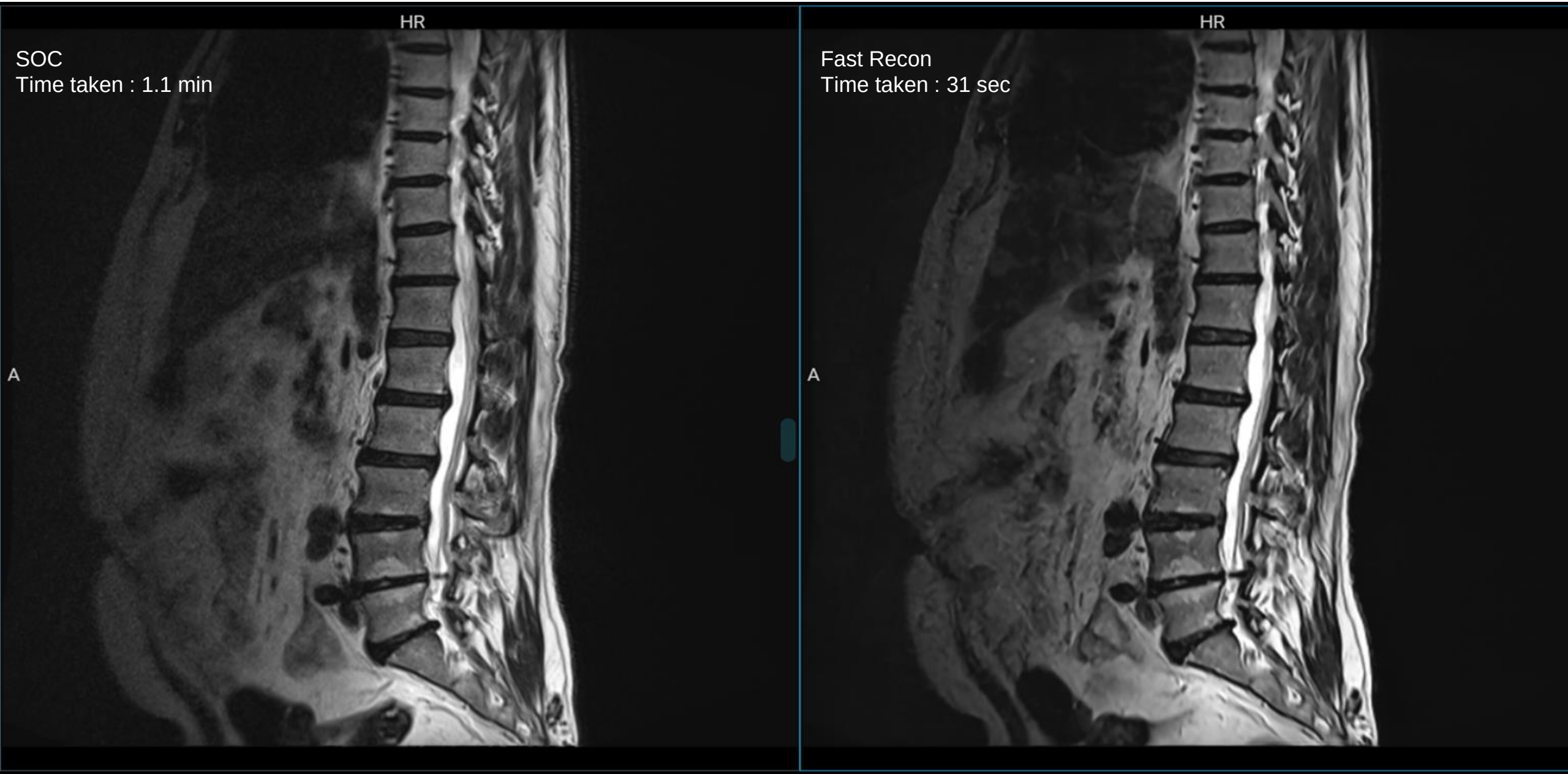
Scans (SOC & fast) are taken at different time





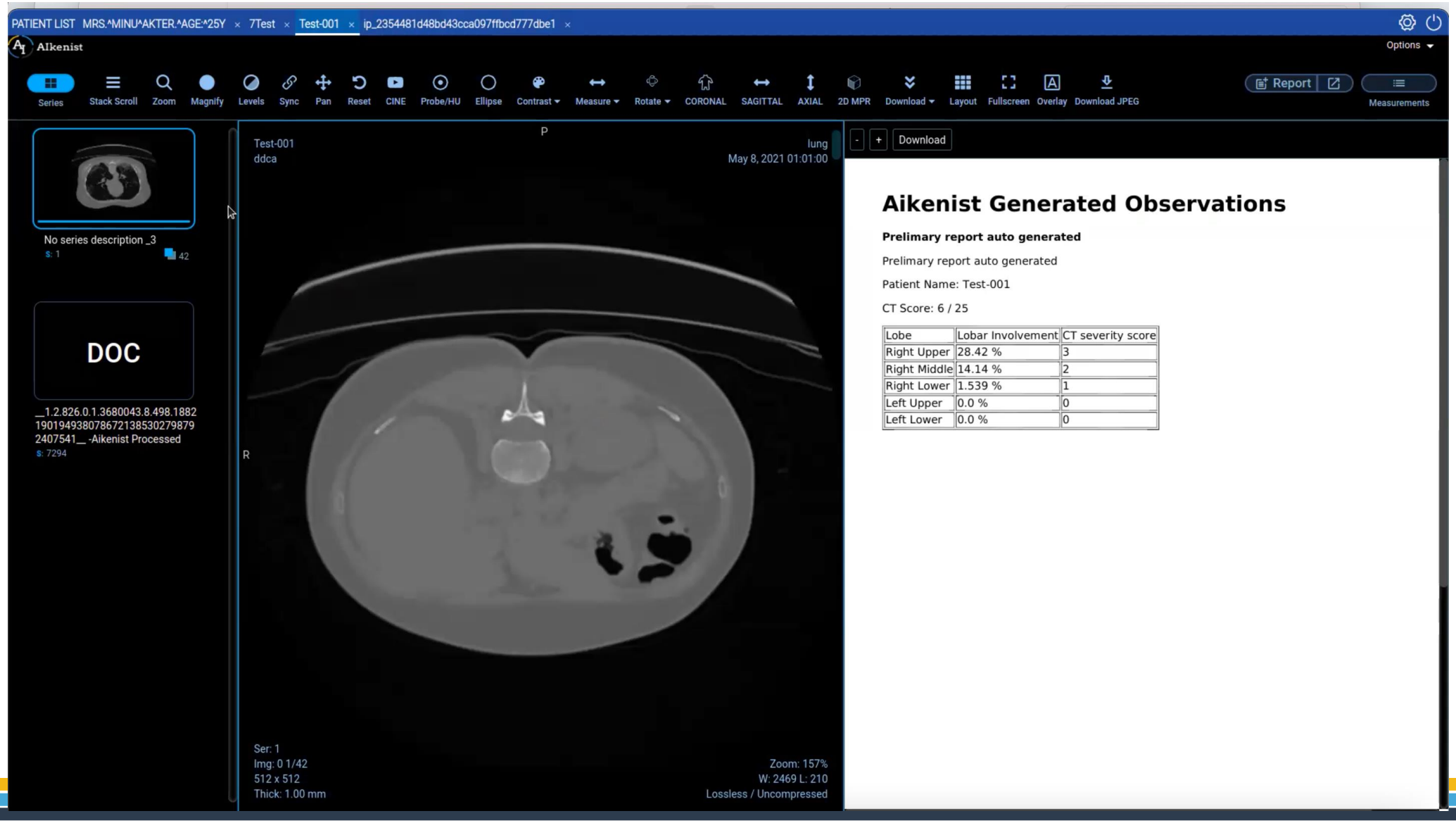
(50% time reduction)

Scans (SOC & fast) are taken at different time

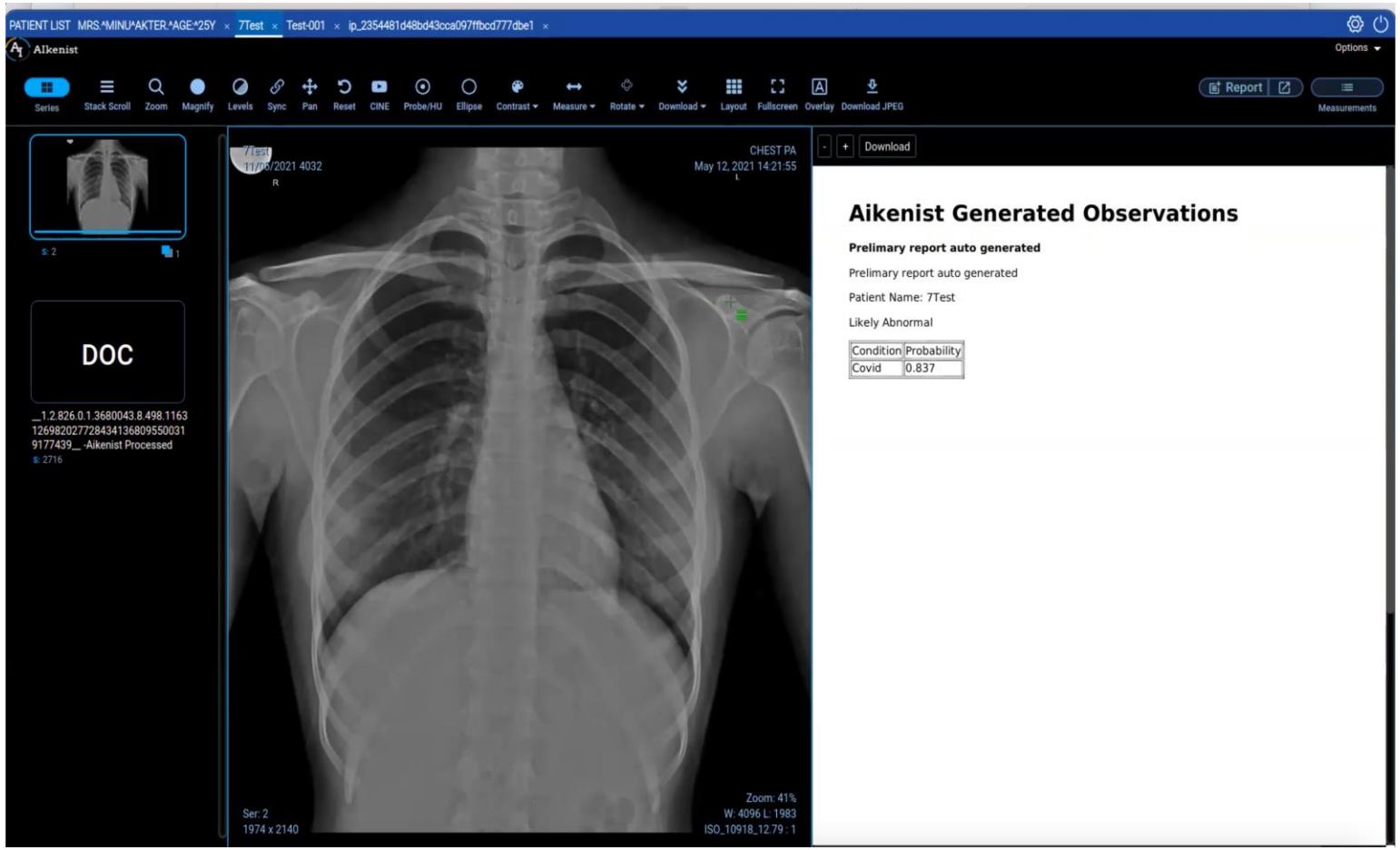


QuickDiag – CT Chest

CT Covid detection with auto severity scoring on 1-25. Accurate within 10% of Radiology reporting. Better Objective scoring



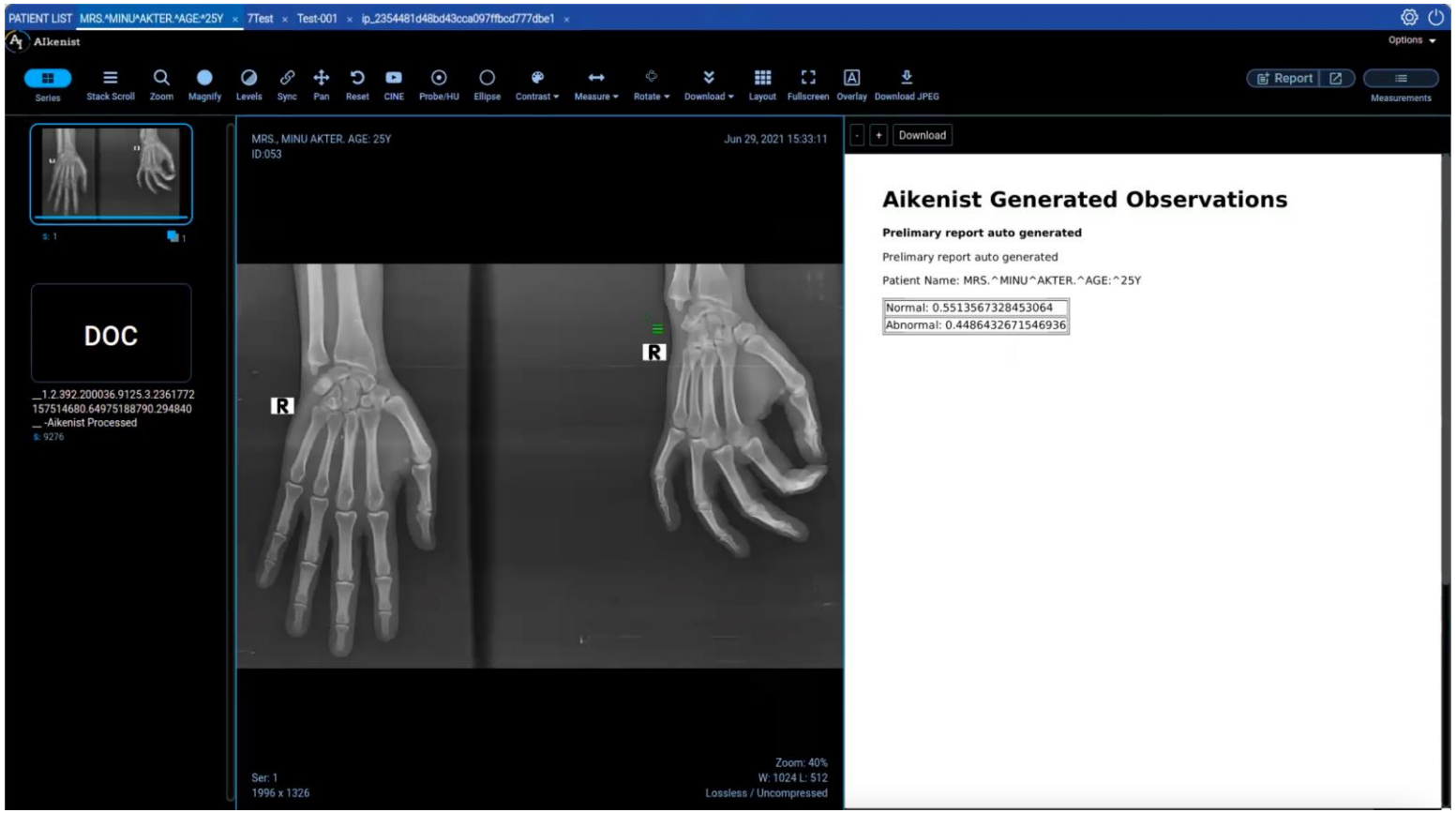
QuickDiag- Xray Chest



Features

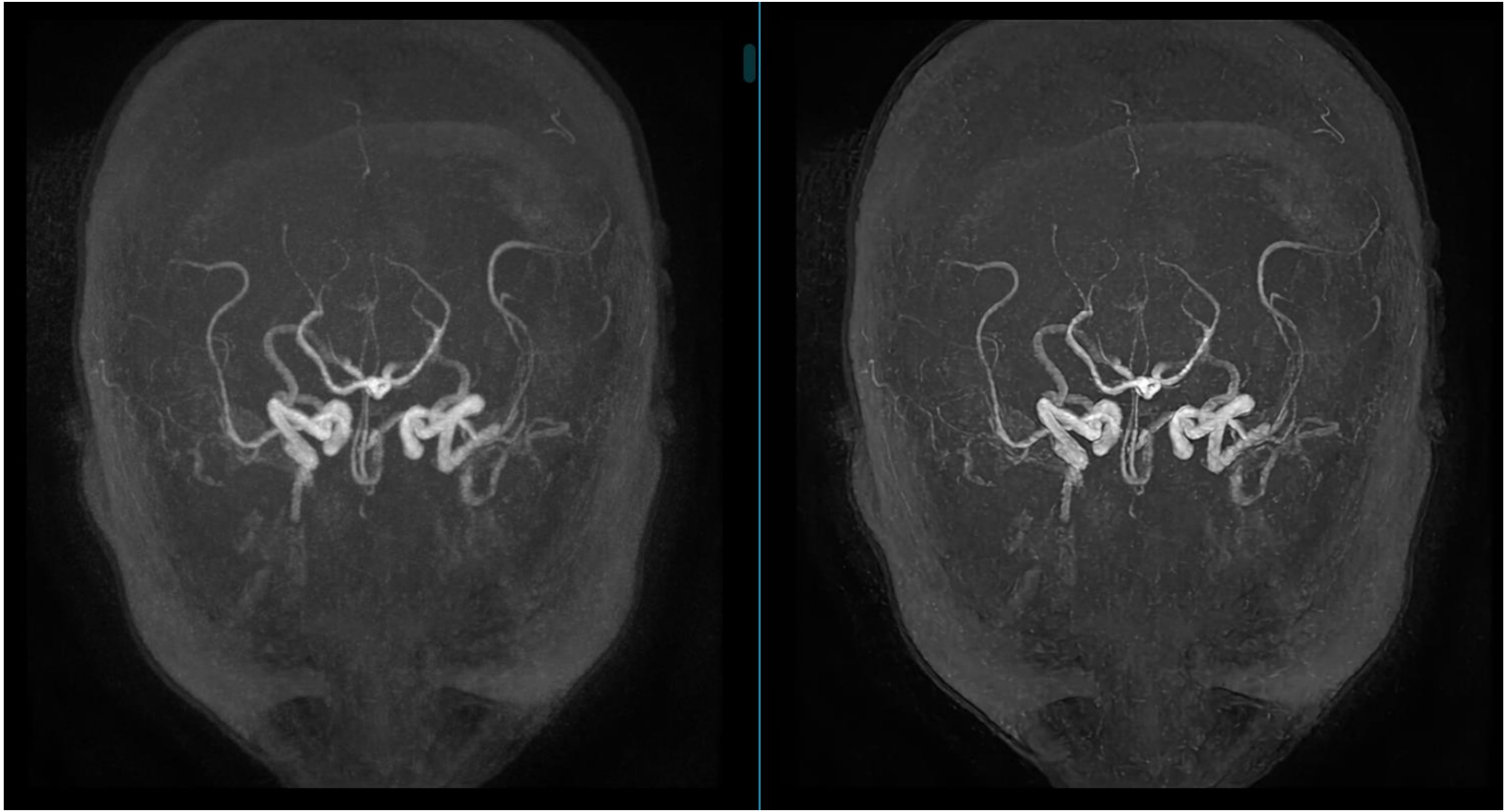
- Normal vs Abnormal
- Abnormal cases: 3 Class, 5 Class and 10 Class Classification
- Classes Included: Covid, Consolidation, Emphysema, Pleural Effusion, Cardiomegaly, Pneumonia
- Trained on poor quality scans for better performance

QuickDiag- Xray Bone



Features

- Normal vs Abnormal
- Wrist, Shoulders, Ankle, Elbow, Forearm, Hand, Humerus
- Trained on poor quality scans for better performance
- Developed NLP for reading reports
- Developed bot to download data automatically after anonymization



3D MR Angio with better visibility of vessels, vessel margins and signals

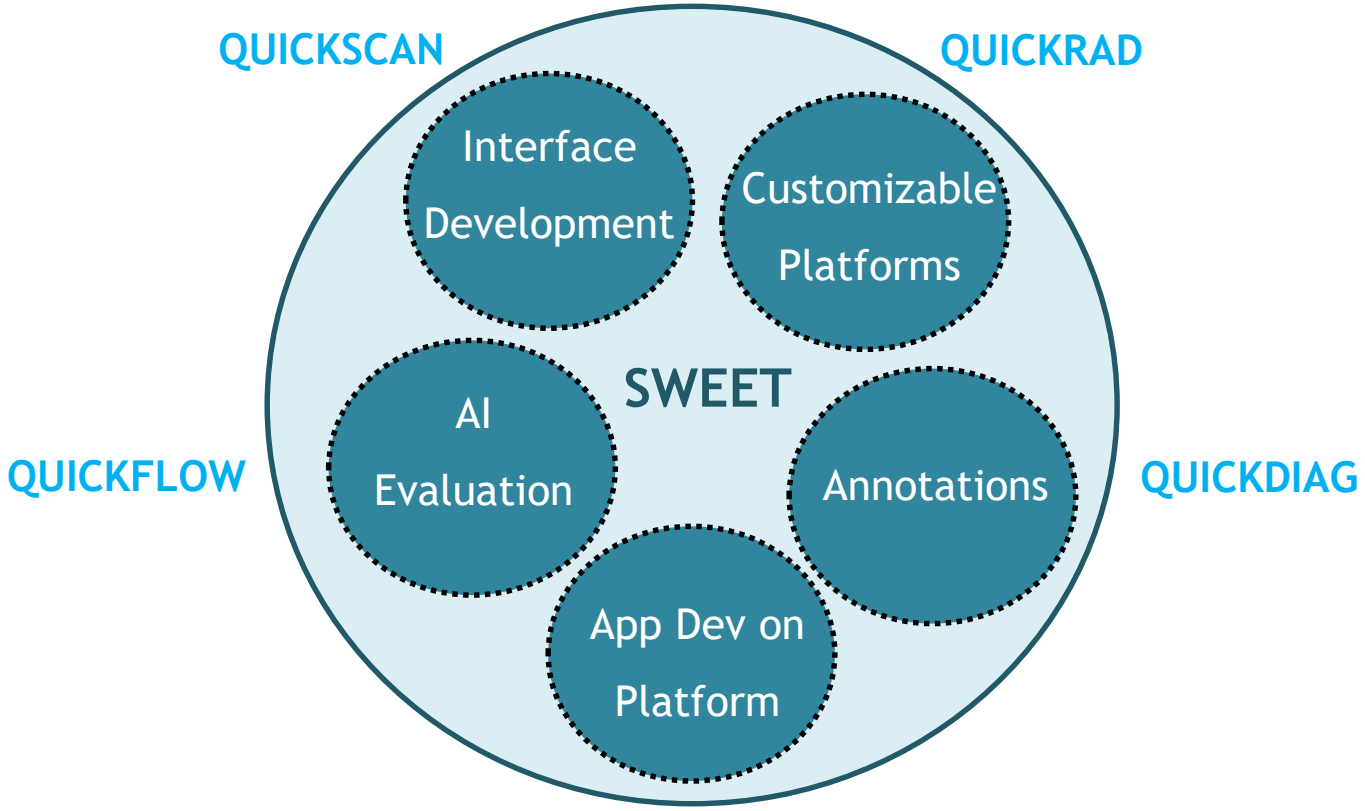
Security and Privacy

- **At rest encryption on cloud (256 Bit AES)**
- **Secured connection**
- **HTTPS transmission**
- **Inbound and Outbound rules**

- **Anonymized Patient Name, Age, Gender and other details**
- **Deanonymization happens on premise**

AIkenist

Summary of Offerings



Combs of the 4 products

Roadmap…

2024, 2025

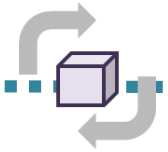
FDA clearance.

Launch of end to end Gen AI solution

Target: 1-2 Mn $ ARR

10K $/customer

2026, 2027



Leader in India market

Launch in US, Europe market

Target: 10-15 Mn $ ARR

100K $/ customer

2028, 2029

Fast Scanning 1-3 mins

Quick Appointment 30 mins

Fast Reporting 1 hr

Fast screening

Target: 50-96 Mn $ ARR

1 Mn $/customer

Aikenist increases Radiology adoption by 5x

Future Roadmap

Imagine access to underserved population for best quality diagnosis

Affordable MRI

2x more scans,
70% better quality
70% reduction in cost
[2000/scan from 7000/scan]

Stroke Scan

<1 min for scan

Patient walks in and out for scan in 5 mins

AIkenist

Summary of Offerings

- Introduction
- Platform
- Product
- What Next

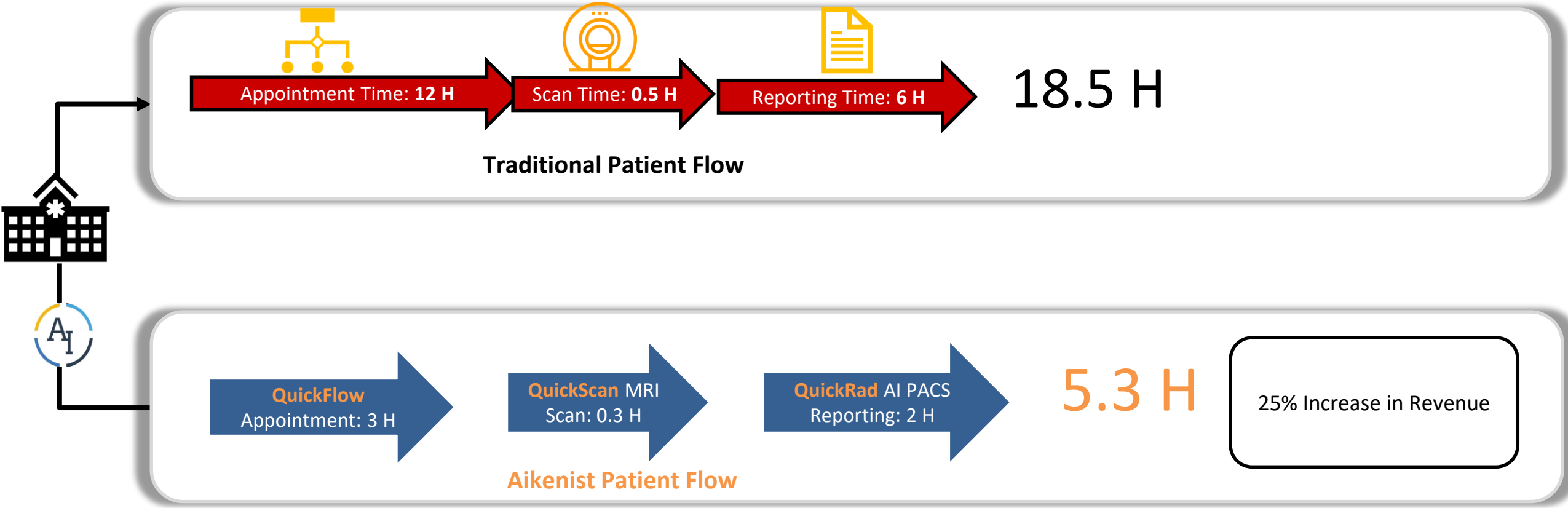
PLATFORM

- Interface Development
- AI Evaluation
- Customizable platforms
- Annotations
- Application Development on Platform

PRODUCTS

- QUICKFLOW
- QUICKSCAN
- QUICKDIAG
- QUICKRAD
- Combinations of the 4

Innovative AI Solution



Innovative AI Quick suite software solution to reduce end to end workflow time, improve quality of scans & to improve machine utilization

Net Gain : Improving Affordability, Accessibility and Convenience for Patients for communicable, critical and chronic care

Today's Problem ,

Patients

Long MRI scanning process takes 45 mins – 1hr

Cumbersome post scanning follow up with Physicians and Hospitals

Radiology Centers

Need smooth process during peak load time

Need time saving process for Radiologists and Patients

Patient Process time = Appointment time (1+ D) + Scanning time (30+ min)+ Reporting time (1+ D)+ Physician response time (1+D)

Appointment to Treatment takes Days

Intelligent & Quick Diagnostic flow using Generative AI

AIkenist

Patient Queue

Management

QUICKFLOW

AI Smart Workflow

with PACS & RIS

QUICKRAD

RADIOLOGIST

FAST and SAFE SCANNING

RADIOLOGY CENTER

QUICKSCAN

MRI: 2x Fast Scan

CT: Low Dose CT

70% better SNR

AI ENHANCED &

ANALYSED

SCANS & REPORT

PATIENT

HOSPITAL

FOR

TREATMENT

PHYSICIAN

Impact

Affordable MRI

Uses existing infrastructure and provide affordable MRI for regular checkup of critical & chronic illness

2x more scans, 70% better quality
Target price: Reduce 2000 INR/scan from 7000 INR/scan

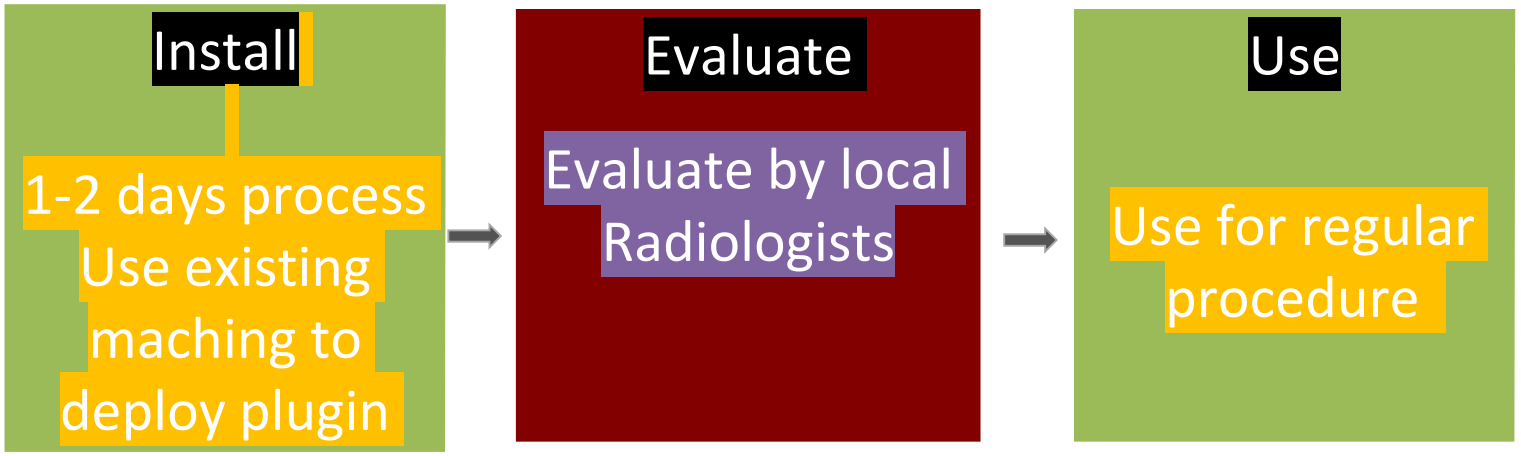
Care Coordination

Provides faster and accurate care coordination for Communicable, Critical and Chronic Care

Imagine access to underserved population for best quality diagnosis

Availability and Installation

- **Remote installation. No upfront Hardware cost**
- **Applicable to 99% procedures**
- **Trial version available. Can push data to evaluate results**
- **Commercialization post evaluation**
- **Would require plugin to be deployed in Imaging center**
- **Anonymized data is pushed**
- **Is compatible with existing machines and PACS**



End to End Radiology Platform

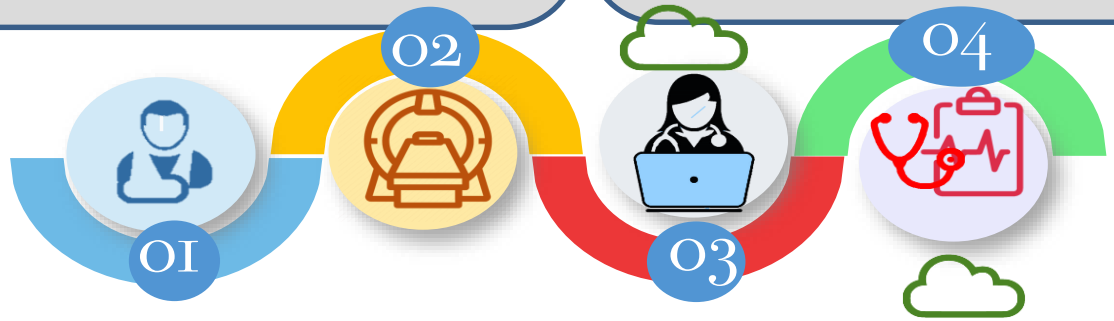
AIkenist

Patient/Clinician engagement platform
Quickflow/Ezheal

Patient books, schedules & pays at Ezheal
Sharing of reports & scans

Accelerated image acquisition - QuickScan

Faster scan up to 2X speed (AI engine in cloud)
Optimizes machine usage
Increases patient convenience



QuickFlow
QuickDiag
QuickScan
QuickRad

AI based diagnosis assistance
QuickDiag

Assistance of QuickDiag
Smart and evolved reporting

All in one PACS (on the cloud)
QuickRad

Teleradiology platform
Rich feature set of conventional PACS

AIkenist

Team

ASHWIN AMARAPUR

Founder, CEO
IISc, Ex- Motorola, NXP .
Exit with AllGo Embed, Ex CEO AllGovision
Serial Entrepreneur

RAVINDRA G H

System Architect
Ex- CGI 25+ yrs experience

DR. MUTHU MAGESH

Advisor - Lead Radiologist

SANJEEV S

Advisor
Business Leader

SACHIN SHEKHAR

Director – Partnership & Growth
Ex- Subex, Angel Investor,
Serial Entrepreneur

CORE TEAM

AI-Engineers, Research Scholars

DR. RUCHI DANA

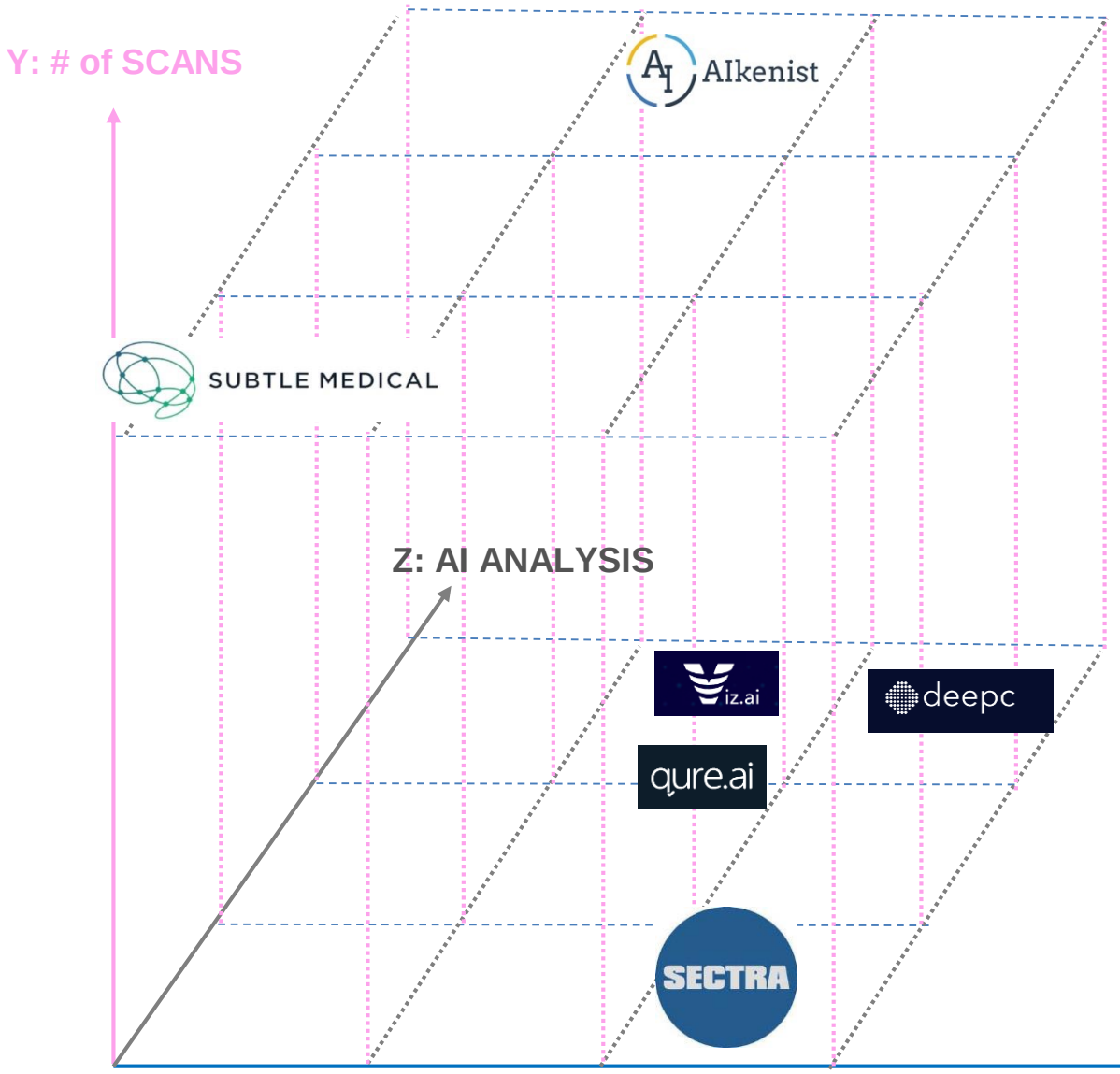
Medical Advisor
MBBS, MD, MBA, VC

VENKATESH SHARMA

Director
Ex Uber, NetApp

Aikenist : Differentiators

- Introduction
- Platform
- Product
- Summary



Cos plotted along 3 Axes

X: # Reports

Y: # of Scans

Z: AI Analysis