

# aview: COPD

Deep learning AI-based automatic COPD analysis solution



## Introduction

# Analyzes chronic obstructive pulmonary disease on chest CT images with deep learning AI technology

core:line's aView:COPD performs

automatically pre-processing in lungs, lung lobes, and airway and quantitatively analyzes chronic obstructive pulmonary disease.

A report with detailed results is automatically generated.

Clearly classify and analyze phenotypes of chronic obstructive pulmonary disease.



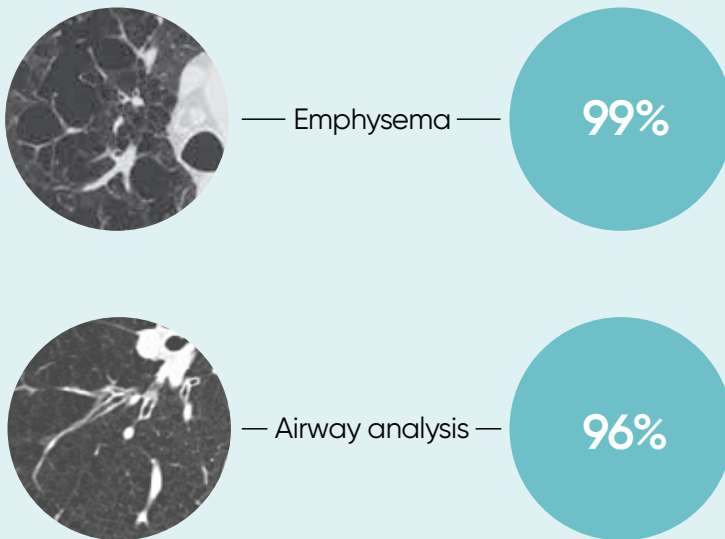
# Automatic analysis agreement

## Emphysema 99% Airway analysis 96%

### Verification results

- It's verified for the concordance and accuracy comparing with the manual analysis by reading specialists and AI automatic analysis using 192 CT image data from COPD patients.

#### Concordance between reading specialists and AI



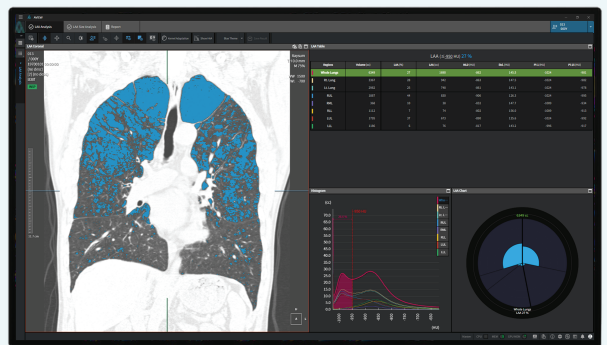
## Key features

# The latest indicators of COPD analysis

Providing various charts and graphs according to the phenotype

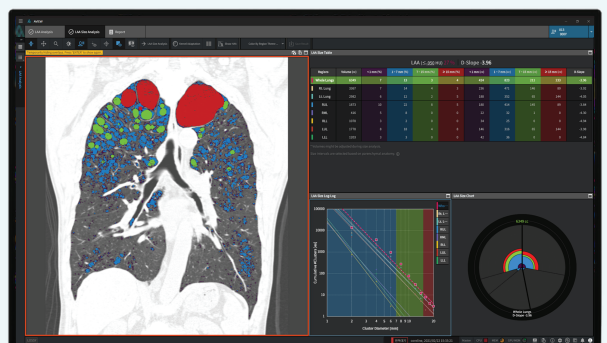
## 1. LAA analysis

- Checks emphysema on MPR images
- Offers the volume of the lung & lobes
- Provides emphysema volume & numerous analyzed values in the lung & lobes
- Examines emphysema distribution through histograms & charts



## 2. LAA size analysis

- Checks emphysema cluster on MPR image
- Offers the volume of the lung & lobes
- Provides volume & D-slope values of lung & lobe emphysema cluster
- Examines emphysema distribution through graph & charts





### 3. Fissure analysis

- Fissure integrity analysis
- Offers analysis of each lung lobe.



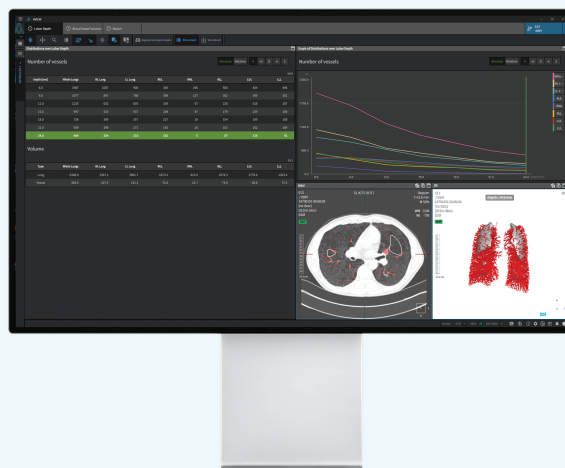
### 4. Airway analysis

- Checks 3D airway segmentation
- Provides AWT-pi10 by airway & volume analysis
- Offers multiple analysis values of the airway diameter and wall are provided.



### 5. Lung vessel analysis

- Provides diameter, area & count analysis of pulmonary vessels.
- TBV & BV5, BV10 analysis available
- Offers various analysis values through histograms & charts.

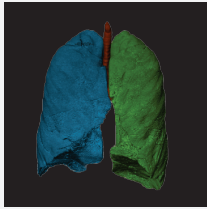


## Key features

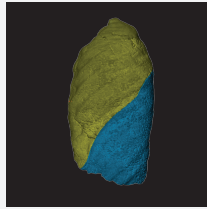
# Shortens working time, improves work efficiency

## Rapid pre-processing

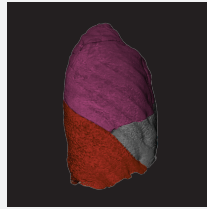
- Expediently pre-processes to automatically segment lungs, lobes, airway.



Lung



Left Lobes



Right Lobes

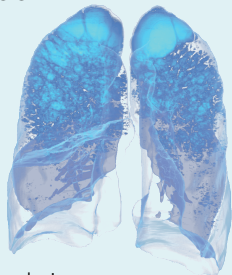


Airway

## Deduction of analysis values for phenotype classification

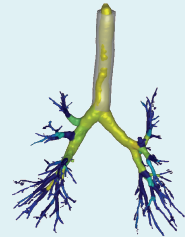
- Analyzes each result by one click.

### Emphysema analysis



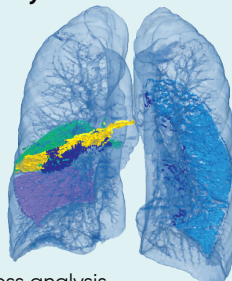
Lobe segmentation  
\*LAA analysis / \*HAA analysis

### Airway analysis



Airway segmentation  
Airway thickness

### Fissure integrity analysis



Fissure detection  
Five Fissure completeness analysis

### Lung vessel analysis



Lung vessel segmentation  
Lung vessel analysis

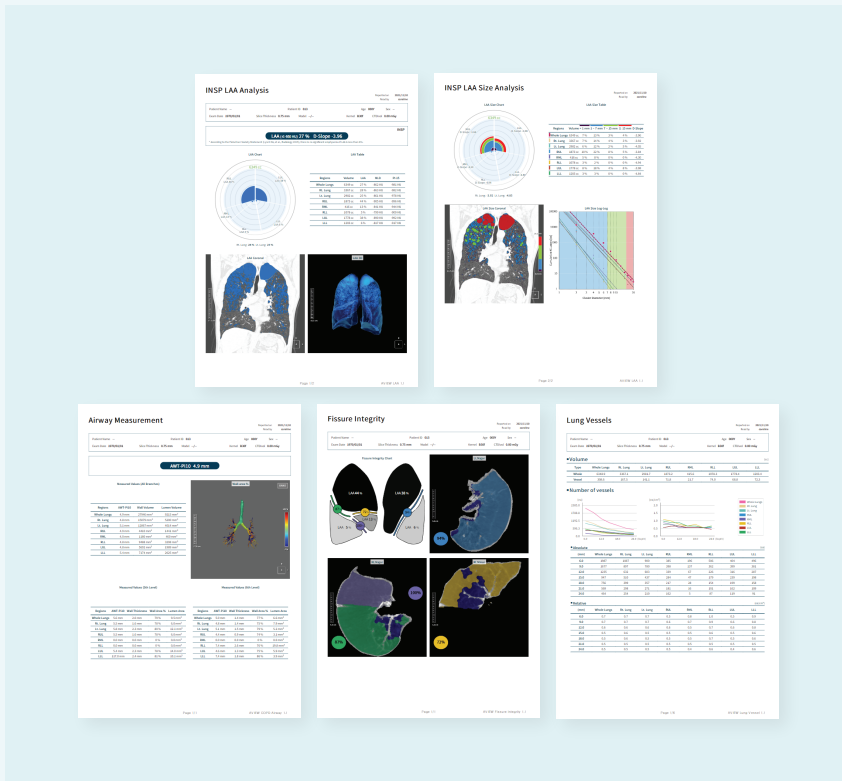
\* LAA : Low Attenuation Area / HAA : High Attenuation Area

## Key features

# Linking and managing data becomes easier.

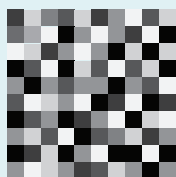
## Report

- Check a report anytime, anywhere through your web browser provided with detailed results.



## Quantification data extraction

- You can conduct the radiomics research about the pulmonary function with the quantitatively calculated and comprehensively extracted indicators.



### Radiomics

- Texture features
- Shape features
- Fractal features

# aview: COPD

Quantitative analysis of chronic obstructive pulmonary diseases.

