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with neuro-expert, lead **neuroscience**

CE Certification

Item description : Brain Image Analysis Software
Purpose of use : the software which acquires medical images and used in conjunction with a device that analyzes treatment simulation and treatment diagnosis simulation.
Caution: "This product is a 'medical device', so please read 'Precaution for use' and 'User Guide' prior to use.

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You can check for more information at our homepage.

AQUA

- Brain MRI Segmentation
- Volumetric Quantification for Atrophy Analysis
- White Matter Hyperintensity Analysis for Fazekas Scale

Analysis **Diagnosis** **Prediction**

AQUA
FEATURES

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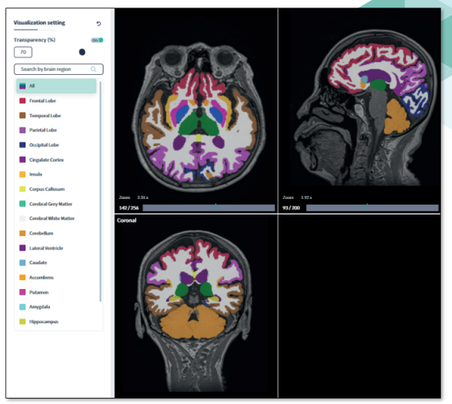
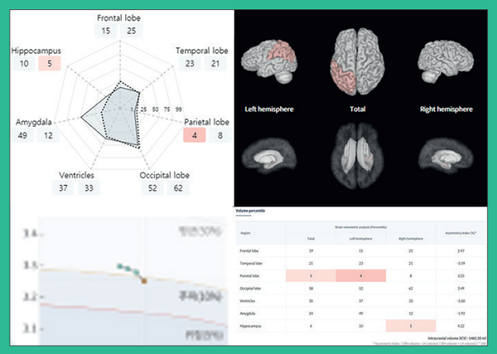


AI-Based Brain MRI Segmentation

- 1-min Processing
- Fully-Automatic
- 34 regions Volumetric Quantification

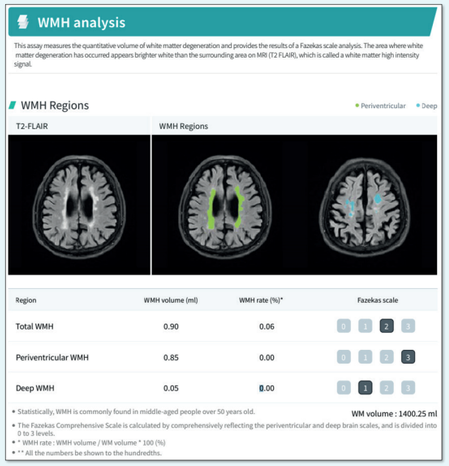


Atrophy Analysis
Based on Normative Database

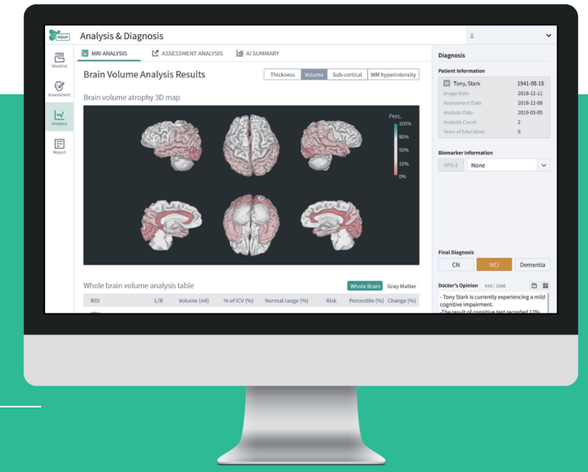
- Volume Percentile in Same Gender and Age
- Atrophy Pattern Graph
- Consecutive Volume Graph

White Matter Hyperintensity Analysis for Fazekas Scale

- Peri and Deep WMH Segmentation
- WMH Volume Quantification
- Rule-based Fazekas Scale Rating



Aqua is a validated medical AI solution by assessing accuracy, reliability, qualitative validation and speed.

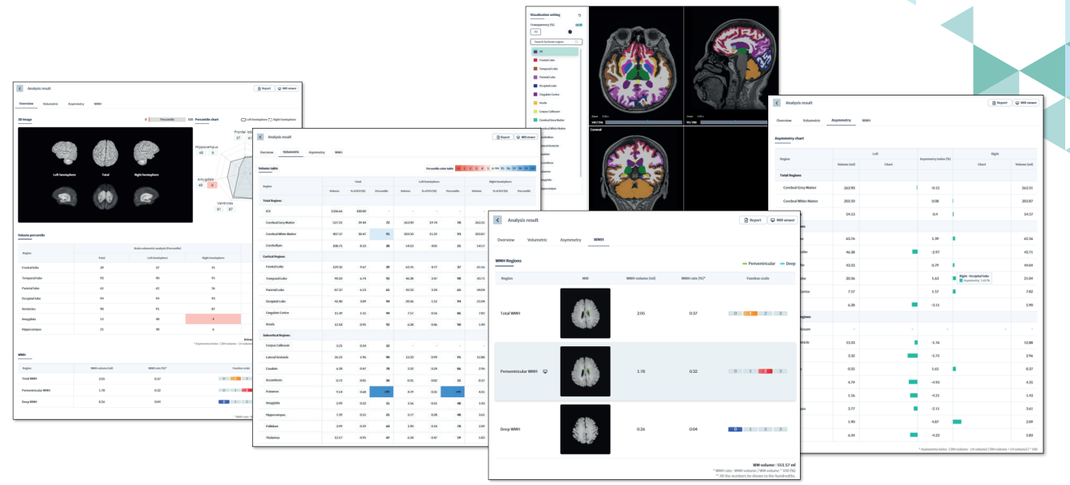


Accurate and Reliable Multi-layer Segmentation

*** SegEngine Evaluation Result** [1]

Evaluation	Segmentation Performance			Segmentation Reliability		
Experiment	Accuracy	Speed		Device Inter-Variability	Repeated measure consistency	Multicenter reliability
Statistics	Dice Overlap(%)	**ASSD (mm)	Seconds (s)	Dice Overlap (%)	***ICC (%)	***ICC (%)
Results	0.907±0.055	0.433±0.236	28.361±2.649	0.897±0.056	0.972±0.031	0.853±0.105
Acceptable	> 0.80	< 1 mm	< 60	> 0.80	> 0.75	> 0.75

* SegEngine : Aqua Artificial Intelligence Segmentation Engine
** ASSD : Average Symmetric Surface Distance (ASSD)
*** ICC : Intraclass correlation coefficient



Reference : 1. Lee et al., Split-Attention U-Net: A fully convolutional network for robust multi-label segmentation from brain MRI, 2020, Brain Sciences