HEAD & NECK APPLICATIONS

Olea Sphere 3.0

State-of-the-Art Post-Processing & 3D Visualization Solution

MULTIMODALITY - MULTIPARAMETRIC - ACCURATE - FAST - QUANTITATIVE - QUALITATIVE - VENDOR NEUTRAL
OLEA SPHERE®
MR HEAD & NECK APPLICATIONS

Olea Sphere® dedicated applications are designed to provide instant access to diffusion and perfusion (DCE) maps and multiparametric analysis, presented with an organ-specific display. Specific kinetics thresholds based on state-of-the-art scientific publications* and quantitative data based on robust mathematical models are also provided.

INSTANT COMPREHENSIVE LESION ASSESSMENT

One click output

Multiparametric analysis from instant diffusion and perfusion (DCE) maps computation

QUALITATIVE & QUANTITATIVE ASSESSMENT OF LESION HETEROGENEITY & GRADING

Overview of contrast enhancement
Quantitative perfusion parameters estimation

Olea Sphere® also includes image fusion & subtraction options, highly useful for the assessment of various conditions such as schwannomas, cholesteatomas and neurovascular conflicts evaluation.

IVIM FOR HIGHER QUALITY DIFFUSION IMAGES
Integrating Olea Medical’s proprietary Bayesian method, this unique FDA cleared IVIM plug-in now includes Electronic b, multiple b values automatic computation, offering shorter acquisitions while enhancing diagnostic confidence.

OLEA VISION™, NEXT GENERATION 2D, 3D, 4D DICOM VIEWER
Including user-defined hangings, Olea Vision™ offers unique functionalities for image loading, manipulation and reconstruction.

LONGITUDINAL ANALYSIS FOR EFFICIENT LESION TRACKING
Mono & multimodalities longitudinal analysis plug-ins allow to efficiently follow lesions and assess their progression, between different time points, modalities or series within the same study. Longitudinal analysis plug-ins include temporal subtraction, for an efficient follow-up of chronic conditions, i.e. tumors, multiple sclerosis, etc...

REFERENCES


Once the often complex and numerous ENT MR and/or CT images are acquired dedicated image processing software is needed to analyze these images and to get access to all information imbedded in these images.

The software should speed-up and automate frequently used image analysis and also should open the more complex image processing to radiologists who are working in a non-research environment. This is exactly what the Olea Sphere® software is offering.

Unlike other processing software, the Olea Sphere® software can be tailored to the specific needs of every radiologist and different processing steps can be grouped in a “one or two click workflow”, making live easy and saving a lot of time.

Registration or matching of different MR sequences of one study (for the evaluation of neurovascular conflicts), same MR sequences made at different follow-up dates (for the evaluation of 7th nerve schwannoma growth) and of MR and CT images (for the exact localization of cholesteatomas in the middle ear and of cochlear implants inside the cochlea) are some of the routine ENT applications which can be performed in a reliable and fast way with the Olea Sphere® software.

However, the Olea Sphere® software becomes even more indispensable when more complex image processing is needed. Multi-parametric advanced ENT tumor imaging today consists of routine anatomical MR images completed by perfusion, permeability and Intra Voxel Incoherent Motion (IVIM) diffusion weighted images, and is crucial in the prediction of treatment response, treatment monitoring and prediction of final outcome.

This multi-parametric approach implies that thousands of images are processed in an acceptable time and that complex calculations as IVIM (resulting in the “true” diffusion, excluding false diffusion caused by vascular flow) are possible. Moreover, the software again must be able to automate most of the processing steps and must display all the multi-parametric results in a clear easy to interpret custom made layout. All the above is possible with the OleaSphere software and it will even be difficult to find other software which is for instance able to calculate IVIM values.

Therefore the Olea Sphere® software helps you to save time, helps you to get all information out of the images and gives you access to high end image processing which was before only available and affordable in a research environment.

Jan Casselman, MD, PhD
Professor of Radiology, AZ St. Jan Brugge-Oostende AV, Bruges, Belgium