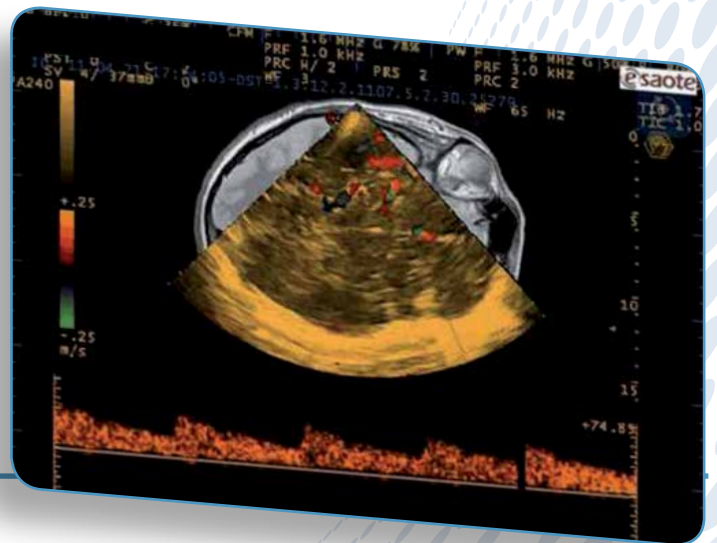
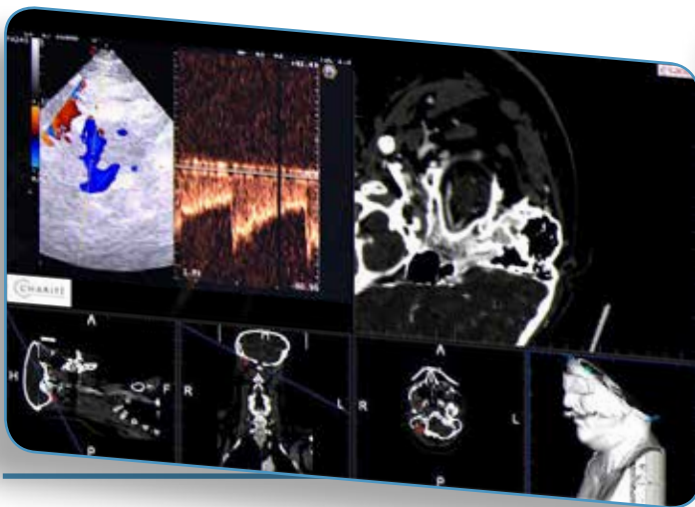




Amazing Breakthrough in Neurosonology

Virtual Navigator enables the real-time fusion imaging between ultrasound and a second reference imaging modality (i.e. MRI or CT)



MyLab™Twice

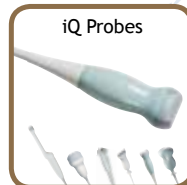
eHD
Technology



The combination has, as final result, the real-time data fusion which allow to increase accuracy and confidence of ultrasound scanning, by overlaying the different images or visualizing them side by side. Virtual Navigator represents an incredible revolution in Neuroimaging, thanks to the ability to integrate hemodynamic information with the standard ultrasound method and the detailed anatomical characterization of the second modality using the high end US system MyLabTwice eHD.

eHD

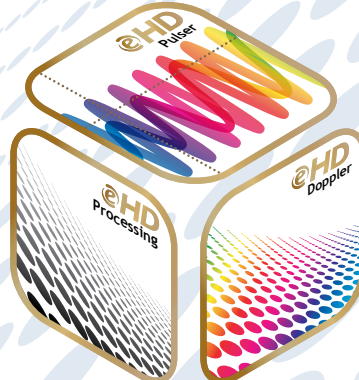
iQ Probes



eHD
Pulser

eHD
Processing

eHD
Doppler



eHD



Meet the Expert: Advantages and possible clinical applications **Virtual Navigator in Neurosonology**



Dr. S. Schreiber,
Charité-
Universitätsmedizin,
Berlin, Germany

Teaching

Real-time fusion imaging facilitates the understanding of three-dimensional structures, their translation into the different ultrasound insonation planes and the anatomical correlation of parenchymal and vascular structures of the brain and the neck.

Applying the technique extends our currently available tools of teaching and improves learning and the acquisition of practical skills.

Everyday Clinical Practice

Fusion Imaging offers a unique option for direct comparison of previously separated diagnostic modalities. It can improve the diagnostic yield by adding more confidence in allocation and interpretation of findings. Any clinical

condition requiring initial CT or MRI with subsequent need for short or long term follow-up (e.g. ischemic stroke and thrombolysis, intracranial haemorrhage, other lesions like brain tumors or arterio-venous malformations) is open for the application of the technique.

Using fusion imaging as a follow-up tool adds a further diagnostic step which may save your patient additional CT or MRI scans.

Research

Real-time fusion imaging opens a wide range of possible research fields by combining information from conventional MRI or CT datasets with dynamic life ultrasound data – either structural (B-mode) or dynamic (vascular and parenchymal blood flow imaging).

Fusion Imaging setting in 3 steps

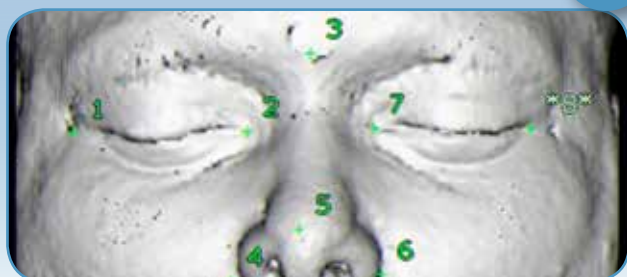
CT/MR Images acquisition and transfer to the Esaote Virtual Navigator System

1



Patient positioning and quick external marker registration (< 1min)

2



Reference points for imaging registration

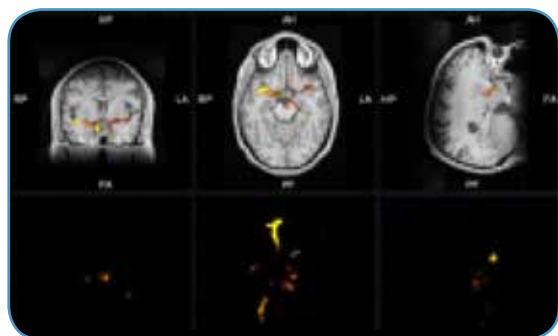
3

Real-time Fusion Imaging scanning with motion compensation



NEW

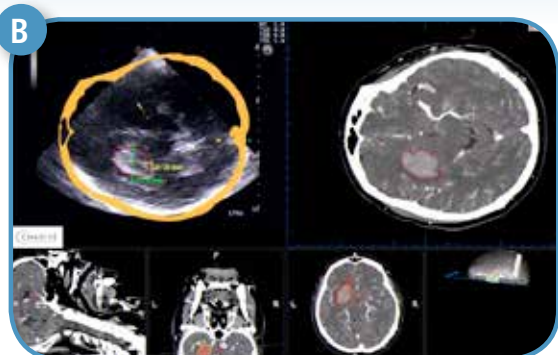
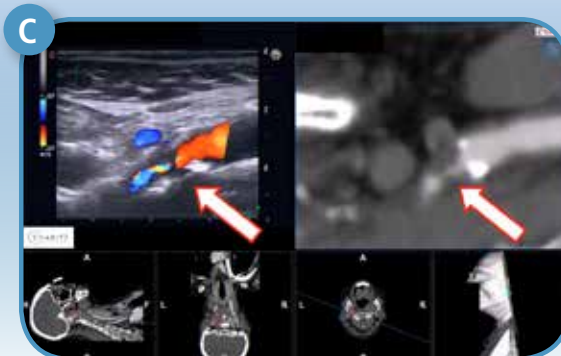
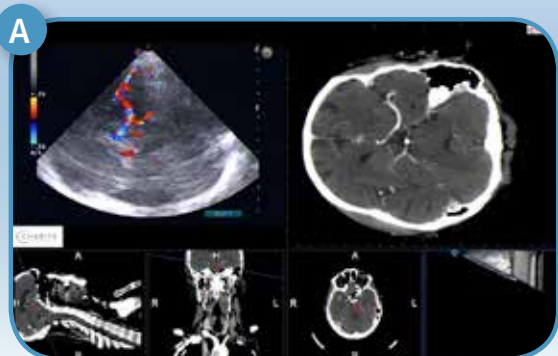
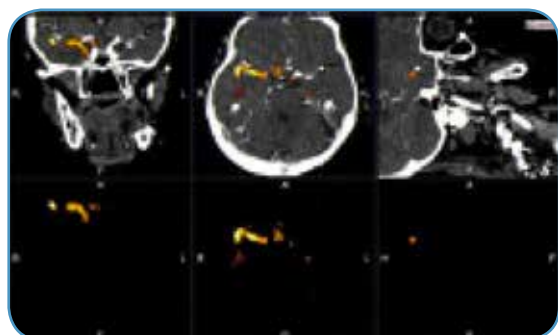
3D Pan in Neurosonology



The 3D Panoramic imaging optionally merged with a reference second modality (MRI or CT) gives the operator the possibility to add 3D hemodynamics information (Color Doppler or Power Doppler) to the anatomical volumes obtained with the second imaging modality.

This exclusive technology could be used, especially in combination with intravenously applied ultrasound contrast agents, in order to better identify occluded vessel segments and

therefore to tailor and individualise the patients further diagnostics and therapy.



A Circle of Willis

B Example of intracranial hemorrhage

C Example of carotid stenosis

Focus on:

Neurosonology ESNCH 2013

Committed to Education

FRIDAY 24th of May
14:00-15:30 (Room Corgo)

Advanced Tutorial:

Transcranial Imaging Planes - advanced approach using fusion imaging

Dr. S. Schreiber, Charité-Universitätsmedizin, Berlin, Germany

Esaote systems will also be present on:

FRIDAY, 24th of May 2013
10:50-13:00 (Room Tâmega)
Basic Tutorials: Hands-on

15:50-18:00 (Room Tâmega)
Advanced Tutorials: Practical Demonstrations

SATURDAY, 25th of May 2013
8:30-10:30 (Room Tâmega)
International certification
examination in neurosonology:
practical

Collect the new Educational DVD Virtual Navigator in Neurosonology

In collaboration with Dr. S. Schreiber, Charité
– Universitätsmedizin, Berlin, Germany

At Esaote booth or
esaote.com/education



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