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SyntheticMRs software SyMRI now in clinical routine for pediatric whole-brain myelin volume quantification

A procedure that typically relies on estimation is brought to calculation with innovative MRI sequence and post-processing approach, meaning significant implications for challenging cases like hydrocephalous

SyntheticMR announced today at the American Society of Pediatric Neuroradiology (ASPNR) the clinical use of their novel MR quantification solution, SyMRI, at Cincinnati Children's Hospital Medical Center, for pediatric cases requiring cerebrospinal fluid measurements – and, for the first time, whole-brain myelin.

"When you have a child with an abnormal head size without a known cause, we need to know why," explains Dr. Jim Leach, radiologist of Cincinnati Children's Hospital Center and Professor at UC Department of Radiology. "Typically, it's difficult to get accurate measurements of cerebrospinal fluid (CSF). We'd have to send the images to a processing environment, which is often difficult for a clinical radiologist to use – and then the results were confusing. We also didn't have a way to determine if the myelin development was abnormal. Now, we can access the data immediately when we are reading out and have an accurate measurement of whole brain myelin volumes. I don't have any other clinical means that allows me to do that. It's a very important development."

Dr. Leach and his team utilize a volumetric protocol for pediatric patients who have head-size concerns. In addition, these quantitative evaluations can be done in a short scan of only 5 to 6 minutes – which can result in less sedation rates for patients, putting their often-worried parents at ease.

"We couldn't be more thrilled to contribute to the cutting-edge work being done at Cincinnati Children's Hospital Medical Center," adds Kyle Frye, President of SyntheticMR North America. "The work being done at this facility under the guidance of Dr. Leach is truly realizing the future today. It's an honor to be a part of it."

For anyone who's had a child's head measured and been alarmed with the potential of hydrocephalus, this is a game changer. "SyMRI has moved into our clinical routine. The quantitative data helps us make decisions about what's normal and what's not," explains Leach. "We can monitor the development and production of myelin, white and grey matter, in a quantitative environment in minutes – which means better diagnostic certainty. And when you're dealing with kids, leaving anything to question isn't acceptable."

About SyMRI

SyMRI, which is FDA cleared for patients of all ages, combines an MR sequence with post-processing MR software, and includes multiple contrast-weighted images, fully adjustable for TE, TR, and TI values for optimal flexibility. The software includes automatic segmentations and volume measurements of tissue such as white matter, gray matter, cerebrospinal fluid and myelin to allow users to track disease progression or compare against control groups. Using a single 5-6 minute scan with a post-processing time of less than 10 seconds, SyMRI is available both as a stand-alone solution or be fully integrated into the clinical workflow.

To learn more, contact Kyle Frye at (859) 512-9496 or kyle.frye@syntheticmr.com or Hege Nåbo at +46 073272421 or hege.nabo@syntheticmr.com

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SyntheticMR AB develops and markets innovative software solutions for Magnetic Resonance Imaging (MRI). SyntheticMR AB has developed SyMRI®, delivering multiple, adjustable contrast images and quantitative data from one 6-minute scan. The SyMRI product is available in different packagers. SyMRI IMAGE provides fast MRI workflows, allowing high-patient throughput. SyMRI NEURO enables automatic segmentation of brain tissue, providing objective decision support. SyMRI is a CE-marked and FDA 510(k) cleared product. SyMRI is a registered trademark in Europe and the USA. SyntheticMR is listed on the Spotlight Stock Market Exchange in Stockholm, Sweden.