

Siemens presents new MR applications for Oncology -

Innovations for Women's Health with the Magnetom Espree - Pink, the new dedicated MR breast scanner

Siemens Healthcare exhibits its latest solutions in the field of Magnetic Resonance (MR) for Oncology at the European Radiology Congress ECR 2009 in Vienna. The syngo TimCT Oncology application enables not only comprehensive patient examinations within an extreme short examination time, it can also eliminate the need for multiple examinations with other modalities. The syngo Tissue 4D software supports tissue differentiation of prostate cancer. In addition, Siemens presents innovative technologies in the area of Women's Health: dedicated breast coils for 1.5 Tesla (T) and 3 Tesla systems as well as the new breast scanner Magnetom Espree - Pink. The 1.5T system combines a 70cm Open-Bore design with a dedicated breast care solution. Specifically designed for obese and claustrophobic patients, the large bore makes examinations more comfortable than with previous systems, or, in some cases, it makes them possible for the first time ever. Supplementary software packages such as syngo Grace allow for the biochemical detection of lesions that go beyond imaging.

The role of magnetic resonance in oncology

MR plays an important role in tumor staging during pre-surgical planning, therapy monitoring and follow-up. The syngo TimCT oncology software enables continuous table movement for imaging with a large Field of View (FoV) and comprehensive staging for increased workflow. As a result, whole-body imaging of a patient is completed in one single step. At the same time, multiple examinations that were previously required are now no longer necessary.

Men's health

Prostate cancer is the most frequent type of cancer for men. Currently, approximately 50.000 new cases of prostate cancer are diagnosed each year in Germany. This number has increased

dramatically during the past years due to ongoing technological advancements in the area of early detection.¹ MR plays an important role in determining which men are at serious risk. With syngo Tissue 4D, Siemens is offering a new software solution for detecting prostate cancer.²

This software offers dynamic evaluation with quantification of tumor tissue in organs such as the prostate. In addition to standard evaluation, Pharmacokinetic Modeling (PKM) is available as an alternative. PKM quantifies the contrast uptake and is suitable for initial as well as follow-up examinations. syngo Tissue 4D is easy to use and offers a fast and guided navigation through all worksteps, including motion correction, registration, curve evaluation, pre evaluation (PKM prep), evaluation (PKM), result, and reporting.

Women's health

At close to 30 percent, breast cancer is the most frequently diagnosed cancer in women. On average, 57,000 women per year are diagnosed with breast cancer in Germany. The yearly mortality rate reaches 17,500.³ The American National Cancer Institute estimates that a woman has a 1-in-8 chance of developing breast cancer during her lifetime. The American Cancer Society's new screening guidelines will impact up to 1.4 million high-risk women by recommending they receive annual MRI screenings. A high percentage of these women will benefit from breast MRI.

Siemens is offering dedicated breast coils for its 1.5 and 3 Tesla Tim systems. Due to their flexible and modular design, these BI coils (Biopsy and Imaging) and AI coils (Advanced Imaging) can be adjusted to the respective examination and patient: one frame comes with different inserts for imaging and biopsy. The coil inserts are manufactured by Noras and Rapid, respectively. The AI breast coil will be available with 16 RF channels for high acceleration factors and advanced imaging.

The introduction of syngo Grace@3T completes Siemens' quantitative MR breast spectroscopy package. This software displays the choline biomarker and supplies valuable information regarding the biochemical status of breast lesions. Monitoring the relative choline concentrations increases the reliability of diagnosis and therapy while reducing overall treatment costs.

¹ Qualimedica.com AG, www.qualimedica.de/prostatakrebs

² U.S. Agency for Healthcare Research and Quality (AHRQ)

³ Federal German Ministry for "Mammography-Screening in Germany- Experiences and Perspectives", ddb-forum Berlin, April 2008

Dedicated MR breast scanner: Magnetom Espree - Pink

Siemens developed the MR system Magnetom Espree - Pink dedicated breast imaging system. The system's compact Open-Bore design provides unmatched patient comfort. Enabling feet-first and head-first positioning and excellent access to perform biopsies, the system has unparalleled openness with a 70 cm Open Bore and the shortest system on the market (125 cm) for increased comfort. The design of the Magnetom Espree-Pink offers an enormous advantage for patients who felt confined by the spatial constrictions of previous MRI systems. Moreover, the scanner also provides sufficient space for adipose patients. Magnetom Espree - Pink includes a comprehensive range of software applications for breast imaging as well the Sentinelle Vanguard for Siemens, a breast coil solution that offers exceptional breast imaging and biopsy access. Its variable coil geometry (Variable Coil Geometry, VG) adjusts optimally to different breast sizes. Eight RF channels provide excellent image quality as well as an improved signal-to-noise ratio.

Press images are located under: <http://www.siemens.com/med-pictures/Magnetom-Espree-Pink> or <http://www.siemens.com/med-pictures/MR-Oncology>

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