

PROSTATE

Wednesday December 2

Scientific Posters

LL-NRE4480, 12:45 - 1:15pm, Learning Center, Hall D, Station#2

Patient-specific Prostate Deformation Modelling via ShearWave™ Elastography for TRUS-guided Interventions

Yi Wang Hong Kong, Hong Kong (Presenter), Dong Ni, BEng, MPH Hongkong, China, Jing Qin Shenzhen, China, Ming Xu Guangzhou, China, Xiaoyan Xie Guangzhou, China, Pheng Ann Heng, PhD Shatin, Hong Kong

PURPOSE: ShearWave Elastography (SWE) shows promise as a technological achievement that provides quantitative information about tissue elasticity. The purpose of this study was to take advantage of the patient-specific biomechanical properties obtained from SWE to reliably predict the prostate deformation during transrectal ultrasound (TRUS)-guided interventions.



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NOVEMBER 29 - DECEMBER 4

ShearWave™ Elastography Presentations

BREAST

Wednesday December 2

Scientific Posters

BR259-SD-WEA7, 12:15pm - 12:45pm, Learning Center Hall D, Station #7

Variation in the Sensitivity of ShearWave Elastography™ (SWE™) for the Detection of Invasive Breast Cancer According to Histological Type: Findings from 1120 Breast Cancers

Andrew Evans, MRCP, FRCR Dundee, United Kingdom (Presenter), Colin Purdie, MBChB, PhD Dundee, United Kingdom, Lee Jordan, Dundee, United Kingdom, Sarah J. Vinnicombe, MRCP, FRCR Dundee, United Kingdom, Kim Thomson Dundee, United Kingdom, Patsy Whelehan, MSc Dundee, United Kingdom

PURPOSE: Previous studies of SWE of invasive breast cancers have included less than 300 tumours so the numbers of special histological type tumours included have been low. The aim of this study is to ascertain the sensitivity of SWE of breast cancer according to histological subtype in a large dataset.

Science Sessions

SSM02-02, 3:10pm - 3:20pm, E451B

ShearWave™ Elastography Assessed with Maximum Visual Color Stiffness in Breast Lesions: The Role as a Complementary Study on B-mode US

Shin Ho Kook, MD Seoul, Korea, Republic Of (Presenter), Seon Hyeong Choi, Seoul, Korea, Republic Of, Yoon Jung Choi, Seoul, Korea, Republic Of, Jung Eun Lee, Seoul, Korea, Republic Of, Inyoung Youn, MD Seoul, Korea, Republic Of

PURPOSE : To evaluate the diagnostic performance of ShearWave Elastography (SWE) with maximum visual color elasticity assessment in addition to B-mode US and the value as a complementary study on B-mode US in breast lesions.

SSM02-04, 3:30pm - 3:40pm, E451B

Prediction of Invasive Breast Cancer Using ShearWave™ Elastography in Patients with Biopsy-confirmed Ductal Carcinoma in Situ

Jae Seok Bae, MD Seoul, Korea, Republic Of (Presenter), Jung Min Chang, MD Seoul, Korea, Su Hyun Lee, MD, PhD Seoul, Korea, Sung Ui Shin, MD Seoul, Korea, Woo Kyung Moon, Seoul, Korea.

PURPOSE: To investigate whether lesion stiffness measured by shear-wave elastography (SWE) could predict histologic upgrade of ductal carcinoma in situ (DCIS) confirmed by ultrasound (US)-guided core needle biopsy (CNB).

Thursday December 3

Scientific Posters

BR269-SD-THA3, 12:45am-11:40pm, Learning Center, Hall D, Station #3

Role of Peritumoral Stromal Tissue Stiffness Obtained on ShearWave™ Elastography for the Prediction of Malignancy

Su Min Ha, MD Seoul, Korea, Hye Sun Park, MD Seoul, Korea, Hee Jung Shin, MD Seoul, Korea, Ki Chang Shin, Seoul, Korea, Hak Hee Kim, MD Seoul, Korea, Joo Hee Cha, MD Seoul, Korea, Eun Young Chae Seoul, Korea, Woo Jung Choi, MD Seoul, Korea

PURPOSE : To evaluate the role of tumor and peritumoral stromal tissue stiffness obtained using ShearWave Elastography (SWE) for the prediction of malignancy.

LIVER

Monday November 30

Science Sessions

SSC04-09 , 11:50am - 12:00pm, E451A

Evaluation of Splenic Stiffness in Patients of Extrahepatic Portal Vein Obstruction Using ShearWave™ Elastography: Comparison with Intra-Operative Portal Pressure

Madhusudhan Kumble Seetharama, MD, FRCR New Delhi, India (Presenter), Raju Sharma, MD New Delhi, India, Ragini Kilambi, MS New Delhi, India, Peush Sahni, MBBS, MS New Delhi, India, Sujoy Pal New Delhi, India, Nihar R. Dash, MS New Delhi, India, Arun K. Gupta, MBBS, MD New Delhi, India

PURPOSE : To compare splenic stiffness (SS) measured by ShearWave elastography (SWE) in patients of extrahepatic portal vein obstruction (EHPVO) with intra-operative portal system pressures (PP).

Tuesday December 1

Scientific Poster

PD221-SD-TUA2 , 12:15pm - 12:45pm, Learning Center, Hall D, Station #2

Diagnosis of Biliary Atresia: The Value of Real-time ShearWave™ Elastography

Zhou Lu-Yao Guangzhou, China (Presenter), Xiao-Yan Xie, Guangzhou, China

PURPOSE : To assess the diagnostic performance of real-time ShearWave Elastography (SWE) in identifying Biliary Atresia among infants with conjugated hyperbilirubinemia.

Science Sessions

SSJ09-04, 3:30pm - 3:40pm, E350

Direct Comparison of 3 Elastometry Devices (Fibroscan, Acoustic Radiation Force Impulse, Supersonic ShearWave™ Imaging) for the Non-Invasive Diagnosis of Liver Fibrosis in Chronic Liver Diseases

Victoire Cartier, MD Angers, France (Presenter), Jerome Boursier, Angers, France, Jerome Lebigot, MD Angers, France, Frederic Oberti, MD, PhD Angers, France, Isabelle Fouchard-Hubert, Angers, France, Sandrine Bertrais Angers, France, Paul Cales, MD, PhD Angers, France, Christophe Aube, MD, PhD Angers, France

PURPOSE : Liver stiffness measurement using elastography allows for a non-invasive diag-

nosis of liver fibrosis with immediate results at bedside. We aimed to evaluate and compare the feasibility and the diagnostic accuracy Fibroscan (FS), Acoustic Radiation Force Impulse (ARFI), and Supersonic ShearWave Imaging (SSI) for the non-invasive diagnosis of liver fibrosis.

RC413-05 , 3:50pm - 4:00pm, S102AB

ShearWave™ Elastography for Evaluation of Clinically Significant Portal Hypertension and Hepatic Fibrosis in Children

Hee Mang Yoon, MD Seoul, Korea, (Presenter), Young Ah Cho, Seoul, Korea, Ah Young Jung, Seoul, Korea, Jin Seong Lee, MD Seoul, Korea, Chong Hyun Yoon, Seoul, Korea.

PURPOSE : To evaluate the correlation among the liver stiffness (LS) measured by shear wave elastography (SWE), clinically significant portal hypertension (CSPH), and degree of hepatic fibrosis in children with liver diseases.

MUSCULOSKELETAL

Tuesday December 1

Educational Courses

RC304-03, 9:10am - 9:20am, E450A

ShearWave™ Elastography (SWE™) Improves Treatment Monitoring of Patients with Tendinopathies

Timm Dirrichs, Aachen, Germany (Presenter), Christiane K. Kuhl, MD Bonn, Germany, Valentin Quack Aachen, Germany, Simone Schradling, MD Aachen, Germany

PURPOSE : It has been shown that SWE is useful for the evaluation of tendoninopathies. Purpose of this prospective clinical study was to analyze the correlation between clinical symptoms and tendon stiffness in patients undergoing treatment of tendinopathies. Aim is to establish SWE as tool for monitoring tendon healing under therapy.

RC304-04, 9:20am - 9:30am, E450A

Delayed Onset Muscle Soreness (DOMS) after Eccentric Resistance Training of the Elbow Flexor Muscles: Temporal Evolution of MRI, Diffusion Tensor Imaging and Ultrasound ShearWave™ Elastography Findings

Christoph A. Agten, MD Zurich, Switzerland, Florian M. Buck, MD Langnau Am Albis, Switzerland, Linda Dyer Zurich, Switzerland, Christian W. Pfirrmann, MD, MBA Forch, Switzerland, Andrea Roskopf, MD Zurich, Switzerland (Presenter)

PURPOSE : To evaluate the appearance of DOMS over time using fluid-sensitive and diffusion-weighted MRI sequences, diffusion-tensor imaging(DTI) and ultrasound(US) ShearWave Elastography in healthy volunteers.

Scientific Posters

MK352-SD-TUB4 , 12:45pm - 1:15pm, Learning Center, Hall D

ShearWave™ Ultrasound Elastography Evaluation of the Supraspinatus Tendon

Christoph A. Agten, MD Zurich, Switzerland, Florian M. Buck, MD Langnau Am Albis, Switzerland, Linda Dyer Zurich, Switzerland, Christian W. Pfirrmann, MD, MBA Forch, Switzerland, Andrea Roskopf, MD Zurich, Switzerland (Presenter)

PURPOSE : To demonstrate that the sonographic morphology of the supraspinatus tendon correlates with elasticity.