University Hospital Tübingen

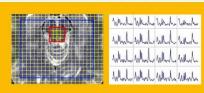
Diagnostic and Interventional Neuroradiology



Proton MR Spectroscopy in Neuroradiological Diagnostics

Workshop on the impact of proton spectroscopy in neuroradiological MR examinations.

Tübingen, 19./20. February, 2016





Introduction

Dear Colleagues,

MR proton spectroscopy is a long known method in radiological examinations, which provides valuable additional diagnostic information. Nevertheless it is not used in many radiological sites due to a lack of experience with the measurement sequences and the evaluation technique. In our workshop, several specialists of spectroscopic measurements in neuroradiological applications will share their experiences and approaches to this technique.

The workshop focuses on the most common applications. In addition, there will be several reports on current research projects using proton spectroscopy in neuroradiological topics.

We are pleased to invite you to our MR workshop in the University Hospital of Tübingen.

Prof. Dr. U. Klose Prof. Dr. U. Ernemann

Program

Friday, 19.2.2016

4.00 pm First session

Ulrike Ernemann, Tübingen: Welcome address

Uwe Klose: Overview of the workshop topics

Lily Varaki: Added information from MR spectroscopy in the evaluation of brain tumors: Challenges in daily clinical practice

Adriane Gröger: Intra-individual comparison of metabolic patterns in chronic multiple sclerosis lesions and normal appearing white matter using 2D MRSI

Barbara. Bobek-Billewicz: Proton spectroscopy in spinal cord lesions

Michael Gottschalk: Short echo-time spectroscopy of glioma with detection of glutamine and glutamate

Anke Henning: Applications of 2D J-resolved MRS in neurological and psychiatric disorders

Steffi Dreha-Kulaczewski: MR Spectroscopy in Pediatric White and Gray Matter Diseases

6.30 pm Light meal and get-together

Program

Saturday, 20.2.2016

9.00 am Second session

Benjamin Bender: Spectroscopy in MLD after bone marrow transplantation

Monika Dezortowa: MRI and MRS findings in

ADHD patients

Samuel Gröschel: MRS in Metachromatic

Leukodystrophy

Adam Berrington: 2-HG detection in gliomas

using a semi-LASER sequence

Adriane Gröger: Pitfalls in the quantitative analysis of spectra using Syngo and LCModel

Uwe Böttcher: MR proton spectroscopy post-

processing with syngo.via

11.00 am Coffee break

11.30 am Third session

Urspeter Knecht: Automatic Quality Evaluation in MRS

Anett Werner: GABA quantification in the brain using a MEGA-PRESS sequence. Methodical considerations and first results

Simon Männlin: Improvement of lactate quantification by optimization of the LCModel basis data set

Xiao-Qi Ding: Neurometabolic reaction on diet stress

Prof. Irina Mader: Radiogenomics by proton magnetic resonance spectroscopy: integrative analysis of metabolites and genome-wide expression in glioblastomas

Grzegorz Chadzynski: Metabolism of human brain tumors studied at 9.4T - first results

1.30 pm End of the workshop

Speakers

Benjamin Bender MD

Dep. of Diagnostic and Interventional Neuroradiology, University Hospital Tübingen, Germany

Adam Berrington

FMRIB Centre, Oxford University, Great Britain

Prof. Barbara. Bobek-Billewicz MD

Radiodiagnostic Department, Maria Sklodowska-Curie Memorial Cancer Centre and Institute of

Oncology, Gliwice, Poland

Uwe Böttcher PhD

Siemens Healthcare GmbH, Erlangen, Germany

Grzegorz Chadzynski PhD

Dep.of Biomedical Magnetic Resonance, University

Hospital Tübingen, Germany

Monika Dezortowa PhD

Institute for Clinical and Experimental Medicine,

Prague, Czech Republic

Prof. Xiao-Qi Ding PhD MD,

Institute of Diagnostic and Interventional

Neuroradiology, Hannover, Medical School,

Hannover, Germany

Steffi Dreha-Kulaczewski MD

Dep. of Pediatrics and Pediatric Neurology, University Hospital Göttingen, Germany

Prof. Ulrike Ernemann MD

Dep. of Diagnostic and Interventional

Neuroradiology, University Hospital Tübingen,

Germany

Michael Gottschalk PhD

Preclinical MRI systems, Lund University

Bioimaging Center, Lund, Sweden

Adriane Gröger PhD

Dep. of Neurology, University Hospital Mainz,

Germany

Samuel Gröschel MD

Dep. of Pediatric Neurology and Developmental Medicine, University Hospital Tübingen, Germany

Anke Henning PhD

Max-Planck-Institute for Biological Cybernetics,

Tübingen

Speakers

Prof. Uwe Klose PhD

Dep. of Diagnostic and Interventional

Neuroradiology, University Hospital Tübingen,

Germany

Urspeter Knecht MD,

Dep. of Diagnostic and Interventional

Neuroradiology, Inselspital Bern, Switzerland

Prof. Irina. Mader MD

Dep. Neuroradiology, University Hospital Freiburg,

Germany

Simon Männlin: cand.med.

Dep. of Diagnostic and Interventional

Neuroradiology, University Hospital Tübingen,

Germany

Prof. Lily Varaki MD,

Neuroradiology Section, Metropolitan Hospital,

Athens, Greece

Anett Werner PhD

Dep. of Neuroradiology, University Hospital

Dresden, Germany

Registration

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Workshop fee: 100 €

The workshop will be presumably accredited as training course by the Medical Association (Ärztekammer) Baden-Württemberg.

Venue

University Hospital Tuebingen

Building 410 (Childrens Hospital) Lecture Hall Tübingen, Germany