

# New Diagnostic Tools of Hepatitis Virus-Related Liver Diseases

The 4th Korea-Japan Liver Symposium  
September 8, 2007, Seoul, Korea

---

Guest Editors

*Soo Ryang Kim, Kobe*

*Okio Hino, Tokyo*

*Masatoshi Kudo, Osaka*

*Hyo-Suk Lee, Seoul*

41 figures, 12 color figures, and 26 tables, 2008

**KARGER**

Basel • Freiburg • Paris • London • New York • Bangalore •  
Bangkok • Shanghai • Singapore • Tokyo • Sydney

S. Karger  
Medical and Scientific Publishers  
Basel • Freiburg • Paris • London  
New York • Bangalore • Bangkok  
Shanghai • Singapore • Tokyo • Sydney

#### Disclaimer

The statements, options and data contained in this publication are solely those of the individual authors and contributors and not of the publisher and the editor(s). The appearance of advertisements in the journal is not a warranty, endorsement, or approval of the products or services advertised or of their effectiveness, quality or safety. The publisher and the editor(s) disclaim responsibility for any injury to persons or property resulting from any ideas, methods, instructions or products referred to in the content or advertisements.

#### Drug Dosage

The authors and the publisher have exerted every effort to ensure that drug selection and dosage set forth in this text are in accord with current recommendations and practice at the time of publication. However, in view of ongoing research, changes in government regulations, and the constant flow of information relating to drug therapy and drug reactions, the reader is urged to check the package insert for each drug for any change in indications and dosage and for added warnings and precautions. This is particularly important when the recommended agent is a new and/or infrequently employed drug.

#### All rights reserved.

No part of this publication may be translated into other languages, reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, microcopying, or by any information storage and retrieval system, without permission in writing from the publisher or, in the case of photocopying, direct payment of a specified fee to the Copyright Clearance Center (see 'General Information').

© Copyright 2008 by S. Karger AG,  
P.O. Box, CH-4009 Basel (Switzerland)  
Printed in Switzerland  
on acid-free and non-aging paper (ISO 9706) by  
Reinhardt Druck, Basel  
ISBN 978-3-8055-8578-1

---

**KARGER**

Fax +41 61 306 12 34  
E-Mail [karger@karger.ch](mailto:karger@karger.ch)  
[www.karger.com](http://www.karger.com)

## Contents

### 1 Preface

Lee, H.-S. (Seoul)

Techniques for the Early Detection of Drug Resistance

---

### 3 Hepatitis B Core-Related Antigen Assay Is Useful for Monitoring the Antiviral Effects of Nucleoside Analogue Therapy

Tanaka, E.; Matsumoto, A.; Yoshizawa, K. (Matsumoto); Maki, N. (Wako)

### 7 Technique for the Early Detection of Drug-Resistant HBV DNA during Antiviral Therapy

Yeon, J.E. (Seoul)

Noninvasive Diagnostic Tests for Hepatic Fibrosis

---

### 11 New Diagnostic Method for Liver Fibrosis and Cirrhosis

Han, K.-H.; Yoon, K.T. (Seoul)

### 17 Diagnostic Accuracy of Imaging for Liver Cirrhosis Compared to Histologically Proven Liver Cirrhosis. A Multicenter Collaborative Study

Kudo, M. (Osaka-Sayama); Zheng, R.Q. (Guangzhou); Kim, S.R. (Kobe); Okabe, Y.; Osaki, Y. (Osaka); Iijima, H. (Nishinomiya); Itani, T. (Kobe); Kasugai, H. (Osaka); Kanematsu, M. (Gifu); Ito, K. (Kurashiki); Usuki, N. (Kobe); Shimamatsu, K.; Kage, M.; Kojiro, M. (Kurume)

### 27 Noninvasive Evaluation of Hepatic Fibrosis Using Serum Fibrotic Markers, Transient Elastography (FibroScan) and Real-Time Tissue Elastography

Tatsumi, C.; Kudo, M.; Ueshima, K.; Kitai, S.; Takahashi, S.; Inoue, T.; Minami, Y.; Chung, H.; Maekawa, K. (Osaka-Sayama); Fujimoto, K. (Wakayama); Akiko, T.; Takeshi, M. (Tokyo)

Early Detection of HCC Using Tumor Markers

---

### 34 Recent Advances in Tumor Markers of Human Hepatocellular Carcinoma

Yoon, S.K. (Seoul)

### 42 Candidate Molecular Markers for Histological Diagnosis of Early Hepatocellular Carcinoma

Sakamoto, M.; Mori, T.; Masugi, Y.; Effendi, K.; Rie, I.; Du, W. (Tokyo)

---

Diagnostic Accuracy of Imaging in the Detection of HCC

**46 Hepatocellular Carcinoma in Patients Undergoing Living-Donor Liver Transplantation. Accuracy of Multidetector Computed Tomography by Viewing Images on Digital Monitors**

Maetani, Y.S.; Ueda, M.; Haga, H.; Isoda, H.; Takada, Y.; Arizono, S.; Hirokawa, Y.; Shimada, K.; Shibata, T.; Kaori, T. (Kyoto)

**52 Diagnostic Accuracy of Multi-/Single-Detector Row CT and Contrast-Enhanced MRI in the Detection of Hepatocellular Carcinomas Meeting the Milan Criteria before Liver Transplantation**

Kim, S.H.; Choi, B.I.; Lee, J.Y.; Kim, S.J.; So, Y.H.; Eun, H.W.; Lee, J.M.; Han, J.K. (Seoul)

**61 Differential Diagnosis of Hepatic Tumors: Value of Contrast-Enhanced Harmonic Sonography Using the Newly Developed Contrast Agent, Sonazoid**

Hatanaka, K.; Kudo, M.; Minami, Y.; Ueda, T.; Tatsumi, C.; Kitai, S.; Takahashi, S.; Inoue, T.; Hagiwara, S.; Chung, H.; Ueshima, K.; Maekawa, K. (Osaka-Sayama)

---

Treatment of Chronic Hepatitis C

**70 Usefulness of a New Immunoradiometric Assay of HCV Core Antigen to Predict Virological Response during PEG-IFN/RBV Combination Therapy for Chronic Hepatitis with High Viral Load of Serum HCV RNA Genotype 1b**

Sasase, N.; Kim, S.R.; Kim, K.I.; Taniguchi, M.; Imoto, S.; Mita, K.; Hotta, H.; Shouji, I.; El-Shamy, A. (Kobe); Kawada, N. (Osaka); Kudo, M. (Osaka-Sayama); Hayashi, Y. (Kobe)

**76 Elevated Serum ALT Levels during Pegylated Interferon Monotherapy May Be Caused by Hepatic Iron Overload**

Nagashima, M.; Kudo, M.; Chung, H.; Ishikawa, E.; Inoue, T.; Nakatani, T.; Dote, K. (Osaka-Sayama)

---

New Prognostic Staging System for Hepatocellular Carcinoma

**86 A New Prognostic Staging System for Hepatocellular Carcinoma: Value of the Biomarker Combined Japan Integrated Staging Score**

Kitai, S.; Kudo, M.; Minami, Y.; Ueshima, K.; Chung, H.; Hagiwara, S.; Inoue, T.; Ishikawa, E.; Takahashi, S.; Asakuma, Y.; Haji, S.; Osaki, Y.; Oka, H.; Seki, T.; Kasugai, H.; Sasaki, Y.; Matsunaga, T. (Osaka)

**95 Author Index**

**96 Subject Index**