

INTERNAL MEDICINE TODAY AND TOMORROW

Editors:

**T. ODA, K. HAMAGUCHI,
M. HOMMA, C. KAWAI**

EXCERPTA MEDICA

International
Congress Series
672

Internal Medicine: Today and Tomorrow

Proceedings of the XVIIth International Congress
of Internal Medicine, Kyoto, October 7–12, 1984

Held under the patronage of The International Society
of Internal Medicine

Editors:

T. Oda

National Medical Center, Tokyo, Japan

K. Hamaguchi

Department of Neurology, Saitama Medical School, Saitama, Japan

M. Homma

*Department of Internal Medicine, Keio University School of Medicine,
Tokyo, Japan*

C. Kawai

*Department of Internal Medicine, Faculty of Medicine, Kyoto
University, Kyoto, Japan*



1986

Excerpta Medica, Amsterdam-New York-Oxford

© 1986 Elsevier Science Publishers B.V. (Biomedical Division)

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior written permission of the publisher, Elsevier Science Publishers B.V., Biomedical Division, P.O. Box 1527, 1000 BM Amsterdam, The Netherlands.

Special regulations for readers in the USA – This publication has been registered with the Copyright Clearance Center Inc. (CCC), 27 Congress Street, Salem, MA 01970, USA. Information can be obtained from the CCC about conditions under which photocopies of parts of this publication may be made in the USA. All other copyright questions, including photocopying outside the USA, should be referred to the copyright owner, Elsevier Science Publishers B.V., unless otherwise specified.

International Congress Series No. 672
ISBN 0 444 807551

Library of Congress Cataloging-in-Publication Data

International Congress of Internal Medicine (17th :

1984 : Kyoto, Japan)

Internal medicine, today and tomorrow.

(International congress series ; no. 672)

Includes indexes.

I. Internal medicine--Congresses. I. Oda, Toshitsugu.

II. International Society of Internal Medicine.

III. Title. IV. Series. [DNLM: 1. Internal Medicine--

congresses. W3 EX89 no.672 / WB 115 I609 1984i]

R106.I543 1984 616 35-29229

ISBN 0-444-80755-1 (U.S.)

Published by:

Elsevier Science Publishers B.V. (Biomedical Division)

P.O. Box 211

1000 AE Amsterdam

The Netherlands

Sole distributors for the USA and Canada:

Elsevier Science Publishing Company Inc.

52 Vanderbilt Avenue

New York, NY 10017

USA

Printed in The Netherlands

**Internal Medicine:
Today and Tomorrow**

The publication of these proceedings has been made possible in great part through a grant from the Japan Shipbuilding Industry Foundation, Chairman: Ryoichi Sasakawa

XVIIth International Congress of Internal Medicine, Kyoto, October 7–12, 1984

Executive Committee of the International Society of Internal Medicine

President	K. Seige (<i>German Democratic Republic</i>)
Past President	E.C. Rosenow (<i>U.S.A.</i>)
President Elect	S. Hinohara (<i>Japan</i>)
Secretary General	R.A. Streuli (<i>Switzerland</i>)
Treasurer	E. Mollet (<i>Switzerland</i>)
Members	A.W. Asscher (<i>Great Britain</i>)
	E.J. de Baer (<i>Peru</i>)
	M. Dorner (<i>France</i>)
	P.C. Frei (<i>Switzerland</i>)
	R.H. Moser (<i>U.S.A.</i>)
	M. Sangiorgi (<i>Italy</i>)

Organizing Committee of the XVIIth Congress

Chairman	T. Oda	
Co-Chairman	H. Uchino	
Secretary General	M. Homma	
Deputy Secretary General	H. Oka	
Treasurer	H. Kameda	
Chairman of the Scientific Program Committee	C. Kawai	
Members	H. Abe	M. Kameyama
	S. Baba	N. Sakamoto
	Yo. Goto	M. Kondo
	Yu. Goto	Y. Shiokawa
	K. Hamaguchi	K. Kosaka
	M. Harasawa	J. Takeuchi
	H. Ijichi	Y. Kuroiwa
	H. Imura	T. Takino
		Y. Tsukada
		S. Miwa
		G. Watanabe
		S. Murao
		S. Yamagata
		H. Okumura
		T. Yanase
		T. Omae

Foreword

Mitsuo Homma

Secretary General, XVIIth International Congress of Internal Medicine

The highly successful XVIIth International Congress of Internal Medicine was held in Kyoto in October of 1984, under the auspices of the Japan Society of Internal Medicine and the Science Council of Japan. We were honored at the opening ceremony and welcoming reception by the presence of their Imperial Highnesses the Crown Prince and Princess, who were instrumental in creating a very special atmosphere on the first day which remained until the close of the congress.

The results of the congress were collated by the Organizing Committee and the Japan Society of Internal Medicine and are published in these Proceedings.

The XVIIth Congress attracted 2,384 participants from 47 countries, including 1,655 from Japan. Papers were contributed by experts of many nationalities on 424 different themes at oral presentation sessions, 21 poster sessions, and a film session. Three outstanding presentations were selected from the poster sessions and film session respectively, and awarded prizes at the banquet.

Many fascinating, new ideas were incorporated into the scientific program, focusing on the theme 'Worldwide Internal Medicine – Today and Tomorrow'. At the first Congress to be held in Japan, the program consisted of 1 guest lecture, 5 special lectures, 12 symposia, 2 panel discussions, 4 current advance series, 2 seminars and 10 satellite symposia. The special lectures consisted of 5 themes selected with an eye on the influence of the technical advancement of internal medicine. The symposia, panel discussions, and current advance series were composed of the themes selected from questionnaires answered by the members of the Japanese Society of Internal Medicine. The Scientific Program Committee was particularly excited by the range and depth of the presentations, discussions and reviews, and members expressed their confidence that the congress will have a significant impact on the theory and practice of internal medicine throughout the world.

The contribution of the World Health Organization is worthy of special mention, both for its general support and specifically for the 3 satellite symposia which it co-sponsored.

A symposium with the theme 'Traditional Medicine', which was also sponsored by WHO, included expositions of traditional Chinese medicine and acupuncture using modern techniques, an especially appropriate subject for a congress held in the East.

The congress afforded not only a venue for the exchange of knowledge on internal medicine, but also an opportunity to strengthen international understanding and friendships through busy social and ladies' programs. Visits to places of special historic interest in Kyoto and Nara were widely enjoyed by foreign participants seeking closer contact with traditional Japanese culture.

An exhibition reflecting the themes of the congress was also staged in the newly

completed Event Hall of the Kyoto International Conference Hall, and was attended by a large number of visitors.

Finally, we wish to express our deep gratitude to the Ministry of Education, Science and Culture; the Ministry of Health and Welfare; the Japan Medical Association; the Japanese Association of Medical Sciences; Kyoto Prefecture Government and Kyoto City Government which sponsored the Congress; and the organizations and corporations which provided enthusiastic assistance.

Preface

Toshitsugu Oda

President, XVIIth International Congress of Internal Medicine

This volume constitutes the thoughts of experts in the study of internal medicine brought together at the XVIIth International Congress of Internal Medicine held in Kyoto, the peaceful and beautiful ancient capital of Japan.

With the presence of their Imperial Highnesses Crown Prince Akihito and Princess Michiko at the Opening Ceremony on the first day, the congress opening was highlighted with a solemnity suitable of such an occasion.

The congress carried the theme 'Worldwide Internal Medicine – Today and Tomorrow', under which heading up-to-date accounts of the most recent developments in medicine led by biomedicine/gene-technology were given. It provided a very exciting and stimulating forum for a contemporary assessment of progress in modern as well as traditional medicine.

I was especially impressed and encouraged by the scope and extent of the international participation in this congress which was held in Asia for the first time, and it is to those 2,500 attendants from abroad as well as from various corners of Japan to whom I owe so much for their contribution to the academic excitement during the meeting.

Also high on the list of my priorities is to express my special indebtedness to the International Society of Internal Medicine, Japanese Society of Internal Medicine, Science Council of Japan, World Health Organization, Ministry of Education, Ministry of Health and Welfare, and Japan Medical Association, without whose gracious patronage and support this great forum would not have been possible.

The object of the congress was the presentation of a scientific program arranged in the host country by a Congress Executive Committee, with the Executive Committee of the Society ISIM under the presidency of Prof. Seige acting in an advisory capacity. It consisted of special lectures, symposia, workshops, panel discussions, free papers, film sessions, poster presentations and satellite symposia, providing many opportunities to discuss current medical issues of concern and to compare them for distinct regions in the world, and to help create a basic common interest for internal medicine of today. It also reached a milestone in the way of providing internal medicine of a novel context based on worldwide vision. Internal medicine has been branching into many specialized fields in the wake of rapid advances and progress in novel sciences and technologies, including the latest which is of epoch-making importance in biomedicine.

All the specializations, for example cardiology, gastroenterology, metabolism and so on, have led us to believe in the need for unity or basis upon which overall internal medicine could build and be integrated as one.

The ring presented behind a pagoda and drawn by His Eminence Reverend Sochu

Suzuki, who delivered an impressive and outstanding memorial lecture, symbolically represents the spirit of Zen Buddhism, the state of calmness, tranquility or peacefulness, and the enlightenment attained through rigid self-discipline, simple life and meditation. It is in our world of high technologies that problems of the mind may arise and men may ask for their liberation. Where there is high technology, there is a quest for high touch. In that context the circle symbolizes harmony between body and mind created in a small cosmos of its own.

Finally I want to express my gratitude and respect to all those who have been involved in this special congress in the literal sense of the following lines of Confucius, familiar to me since my early childhood: 'Is it not a pleasure, having learned something, to try it out at due intervals?' 'Is it not a joy to have friends come from afar?'

We do hope that this volume will prove to be a useful resource both to the participants in the program and to the wider audience of the world. The realization of the volume owes much to the valuable work of the staff of Elsevier Science Publishers B.V.

March 16, 1985

Contents

Presidential address	
<i>K. Seige</i>	1
Present and future tasks of internal medicine in developing countries	
<i>K. Seige</i>	3
SPECIAL LECTURES	7
Heaven and Earth suffer, therefore I suffer – ‘Zen’ and Medicine	
<i>S. Suzuki</i>	9
The promise of recombinant DNA for medical genetics	
<i>S.M. Weissman</i>	11
Newer aspects of prostaglandin research and clinical implications	
<i>O. Hayaishi</i>	15
Thyrotropin receptor subunits and their role in Graves’ disease	
<i>B. Rees Smith, C.R. Rickards, E. Davies Jones, Y. Kajita, P.R. Buckland, F.M. Creagh, R.D. Howells, F. Hashim, A.B. Parkes and V.B. Petersen</i>	23
SYMPOSIA	31
Symposium 1 Cerebral vascular disease	
Prognosis of reversible cerebral ischemic attacks	
<i>C. Fieschi, A. Carolei and A. Pace</i>	33
Strokes in young people in westcentral India	
<i>P.M. Dalal, K.P. Dalal and O. Saraf</i>	37
Cerebral vascular diseases and neurotransmitters	
<i>S. Nakamura and M. Kameyama</i>	45
Clinical and pathophysiological profiles in patients with embolic and thrombotic cerebral artery occlusion	
<i>T. Yamaguchi, K. Minematsu, J. Choki, T. Sawada and M. Ikeda</i>	49
Relationships of cardiovascular and cerebrovascular diseases	
<i>V. Hachinski</i>	55
Ischemic stroke therapy	
<i>F.M. Yatsu</i>	58
Symposium 2 Viral hepatitis	
The diagnosis and management of acute viral hepatitis	
<i>N. McIntyre</i>	63
Epidemiological aspects of chronic viral hepatitis	
<i>P. Gentilini, A.L. Zignego, G. Buzzelli, E. Baronti and D. Gialdini</i>	67

Insulin, glucagon and liver regeneration in patients with severe acute virus hepatitis and impending liver failure <i>R. Baumgarten</i>	73
Treatment of chronic hepatitis, type B <i>H. Suzuki</i>	77
Symposium 3 Environmental aspects of respiratory diseases	
Genetic and environmental factors in the epidemiology of respiratory allergy <i>U. Serafini and S. Bonini</i>	82
Allergic respiratory diseases due to environment <i>T. Miyamoto, K. Akiyama and K. Ohta</i>	87
The pattern of respiratory disease in Southeast Asia <i>S. Bovornkitti</i>	90
The roles of insect inhalant allergens in respiratory allergic diseases <i>T. Kino</i>	94
Prevalence of farmer's lung disease and antibodies to thermophilic actinomycetes in an Iwate farming population <i>M. Tamura, K. Konishi and A. Komuro</i>	99
Air quality of Tokyo metropolis evaluated by analysis of human lung deposits <i>Y. Ohta, M. Inui, H. Shiraishi and M. Matsumoto</i>	106
Variation in nicotine concentration in the daily environment <i>S. Kira, T. Arai, J. Fukui, Y. Kihira, T. Mori and H. Matsushita</i>	113
Symposium 4 Immunological approaches to neoplasms	
Immunological approach to cancer treatment <i>G. Mathé and M. Eriguchi</i>	117
The mechanism of tumoricidal effect of the tumor necrosis factor <i>I. Urushizaki and Y. Niitsu</i>	122
Symposium 5 Progress in gastrointestinal endoscopy	
Progress in upper gastrointestinal (GI)-endoscopy including polypectomy <i>R. Ottenjann</i>	128
Recent advances in the diagnosis and treatment of early gastric cancer in Japan <i>Y. Oguro and T. Sakita</i>	132
Progress in colonoscopy <i>J.D. Waye</i>	141
Therapeutic endoscopy in gastroenterology <i>T. Takemoto, T. Fuji and M. Tada</i>	144
Symposium 6 Coronary heart diseases, worldwide profiles	
Preventive implications of the decline in coronary heart disease mortality <i>W.B. Kannel and T.J. Thom</i>	149

Coronary heart diseases in Japan with reference to special epidemiological features in the world <i>S. Hatano and M. Fujii</i>	164
Prognosis after myocardial infarction in patients aged 60 years or less <i>D.T. Kelly</i>	172
Trends in PTCA (percutaneous transluminal coronary angioplasty) and coronary thrombolytic therapy in Japan <i>M. Sekiguchi, C. Kawai, H. Abe and H. Kambara</i>	176

Symposium 7 Immunological disorders in rheumatic diseases

Immunological mechanisms in arthritis <i>J. Štěpán</i>	182
Immunological mechanisms for angitis in rheumatic diseases: a clinical overview <i>A.T. Masi</i>	187
Immunological abnormalities and clinical expression in rheumatic diseases <i>R. Kasukawa, T. Nishimaki, K. Watanabe, H. Yoshida and T. Tojo</i>	199
Early diagnosis of connective tissue diseases <i>M. Akizuki</i>	203
Immunological tests for the assessment of treatment effects in rheumatology <i>N. Kurata and S. Irino</i>	205

Symposium 8 Progress in leukemia therapy

High risk acute myeloid and lymphoid leukemias <i>G. Mathé, D. Machover, J.L. Misset, P. Ribaud and M. Musset</i>	211
New anthracyclines in the therapy of acute leukemia <i>G. Lambertenghi-Delilieri and E.E. Polli</i>	220
Development of new drugs for the treatment of leukemia <i>H.-J. Röthig, H.P. Kraemer and H.H. Sedlacek</i>	224
Randomized clinical trial of a phase III study of new agents in the treatment of acute leukemia <i>K. Yamada, E. Nagura and K. Kawashima</i>	228
Treatment of leukemia: marrow transplantation versus chemotherapy <i>R. Storb</i>	233
Clinical use of monoclonal antibody in the treatment of leukemia <i>T. Takvorian, S. Sallan, G. Canellos, S. Schlossman and J. Ritz</i>	237

Symposium 9 Traditional Oriental medicine

Medicine in traditional China <i>J. Needham and L. Gwei-Djen</i>	241
Traditional Chinese medicine <i>T. Jingfu</i>	248
The role of traditional Chinese medicine in contemporary health care <i>P.U. Unschuld</i>	251

Scientific basis of Ayurvedic medicine <i>K.N. Udupa</i>	254
Korean traditional medicine <i>J. Huh</i>	265
Approach to pain in traditional and modern medicines: correlations and complementarity <i>J. Bossy</i>	270
The role of traditional Chinese medicine in contemporary health care in Japan <i>K. Terasawa</i>	275
The application of traditional medicine in Japan <i>H. Yasui</i>	282

Symposium 10 Pathogenesis of hypertension

What we know from experimental models for human essential hypertension <i>Y. Yamori</i>	290
Risk factors and pathophysiology of hypertension in the Japanese <i>T. Omae and K. Ueda</i>	295
Salt and high blood pressure <i>G.A. MacGregor</i>	300
Diuresis regulation in hypertension <i>A. Borghetti, G. Bruschi, P. Coruzzi and A. Novarini</i>	306

Symposium 11 Therapeutic plasmapheresis

Progress in therapeutic plasma exchange: a five-year retrospective <i>H.J. Gurland, W. Samtleben and M.J. Lysaght</i>	311
Technical aspects of plasma separation <i>Y. Nosé, P.S. Malchesky, T. Horiuchi and J.W. Smith</i>	318
Controlled trials and applications in apheresis <i>J.W. Smith</i>	324
Plasmapheresis for metabolic disorders <i>H. Klinkman, E. Schmitt, J. Dabels and W. Ramlow</i>	331
Therapeutic plasma exchange in the treatment of hematologic disease <i>A.A. Pineda</i>	339
Plasmapheresis in immune disease <i>H.G. Sieberth and W.M. Glöckner</i>	345
Long-term plasmapheresis in patients with familial hypercholesterolemia <i>H. Von Baeyer</i>	351

Symposium 12 Etiology and clinical features of diabetes mellitus

Pathogenetic factors in Type I diabetes: an update <i>P. Pozzilli, N. Visalli, M. Purpura, P. Beales and D. Andreani</i>	357
Pathogenesis of Type II diabetes with special reference to insulin secretion and action <i>K. Seige</i>	360

Complications of diabetes mellitus with special reference to diabetic osteopenia <i>H. Imura, S. Nakagawa, Y. Goto, K. Kosaka, N. Sakamoto, T. Kaneko and G. Mimura</i>	363
Pathogenesis of microvascular complications of diabetes mellitus <i>F. Goetz, S.M. Mauer, M. Steffes, E. Seaquist, R. Ramsay and D. Sutherland</i>	369
CURRENT ADVANCE SERIES	373
Current Advance Series 1 Treatment of peptic ulcer	
Gastric acid and ulcer disease <i>S.J. Rune</i>	375
Local protection of ulcer lesions <i>A. Ishimori</i>	378
Prostaglandins and the treatment of peptic ulcer <i>T.A. Miller</i>	384
The place for psychopharmacologic drugs in the treatment of peptic ulcer disease <i>J. Myren</i>	388
A plan of management of peptic ulcer <i>D.W. Piper</i>	392
Current Advance Series 2 Antiplatelet therapy	
Pharmacological aspects of antiplatelet drugs <i>N. Kobayashi, M. Takada and T. Maekawa</i>	396
Antiplatelet drugs in ischemic heart disease, coronary artery bypass or peripheral artery surgery <i>A.G.G. Turpie</i>	403
Antiplatelet drugs in clinical medicine – cerebral vascular disease <i>H. Shio and M. Kameyama</i>	408
An overall perspective on antiplatelet drug therapy <i>M. Gent</i>	411
Current Advance Series 3 Degenerative diseases of the nervous system	
Neuropeptides in extrapyramidal system degenerations <i>J.B. Martin and F. Beal</i>	415
Recent advances in the genetic lysosomal disorders <i>K. Suzuki</i>	420
Creutzfeldt-Jakob disease (transmissible dementia, slow virus disease) <i>J. Tateishi</i>	423
Demyelinating diseases in East and West <i>Y. Kuroiwa</i>	426
Paraneoplastic neuromuscular disease with a unique multisystem syndrome (the Crow-Fukase syndrome) <i>T. Nakanishi</i>	430

Current Advance Series 4 Geriatric medicine in East and West	
Problems in the care of the aged <i>D.M. Prinsley</i>	433
Problems in the care of neuropsychiatric disorders in the aged <i>J.A. Yesavage</i>	436
Problems in the care of hypertension in the aged <i>K.D. Bock</i>	440
Problems in the management of cancer in the elderly <i>H.J. Cohen</i>	444
Problems in the care of diabetes mellitus in the elderly <i>H. Orimo, H. Ito, R. Takahashi and T. Nakano</i>	447
PANEL DISCUSSIONS	453
Panel Discussion 1 Postgraduate education (continuing education)	
Postgraduate education in Japan <i>Y. Kinoshita</i>	455
Medical education in India <i>R.N. Misra</i>	458
Postgraduate education in Czechoslovakia <i>V. Pacovský</i>	462
Postgraduate teaching in France <i>J. Ruffie</i>	465
Postgraduate medical education in the United Kingdom <i>A.W. Asscher</i>	467
Continuing medical education in the United States <i>E.C. Rosenow, Jr.</i>	471
Panel Discussion 2 Modern trends in primary care	
Health 2000 in the Developing World <i>M.K. Rajakumar</i>	473
Modern trends in primary care – a report from Czechoslovakia <i>R. Menkyna</i>	476
SEMINARS	479
Seminar 1 Modern trends in infectious diseases	
Recent trends of intestinal infections in Japan <i>K. Kobari</i>	481
Seminar 2 Multicenter studies – theory and practice	
The multicenter clinical studies for evaluation of drugs in Japan <i>K. Harumi and T. Hashimoto</i>	488
AUTHOR INDEX	493
SUBJECT INDEX	496

Presidential address

Konrad Seige

Martin-Luther-Universität, Halle/Saale, GDR

Your Imperial Highnesses,

In the name of the International Society of Internal Medicine, I have the great privilege of expressing to you the devoted greetings and thanks of the internists who have come from about 60 countries in all parts of the world. It is a great honor that Your Highnesses have given us by attending the opening ceremony of this XVIIth Congress of our society, which is due to start in your great country, in this marvelous city.

Your Excellencies, Distinguished ladies and gentlemen, Dear colleagues,

As the president of our society I have the pleasure and the honor of extending a cordial welcome to all our distinguished guests and colleagues who have contributed to the preparation and the realization of this important scientific event. We express our warm thanks for the intensive undertaking which the high Japanese authorities and our Japanese colleagues, first of all the congress president Prof. Oda and all his coworkers, have shown.

I would like to give an especially warm greeting to those of our colleagues and guests who did not hesitate to undertake a long journey in order to be present at the congress and to see Japan and meet its hospitable people.

It was with great pleasure that several years ago the general assembly of our society accepted the invitation of the Japanese Society of Internal Medicine to hold the XVIIth Congress in Kyoto. Here we shall have the opportunity to admire not only the beauties of Japanese millenary culture and civilization, but also the enormous scientific progress achieved by the country as well as the magnificent achievements of modern Japan, rich in work and impetus in this rapidly evolving world.

The progress of techniques has to a great extent involved the medical-biological field to which internal medicine and its subdisciplines have given and received considerable impulses. Modern acquisitions in the different areas of internal medicine have partially led to the development of highly specialized internists and scientists with their own scientific fields. In this respect the participants at our congress can meet with groups of scholars for each of these problems. It is also true that the International Congress of Internal Medicine has the task and the merit of considering internal medicine in a unitary way, and from the scientific point of view to consider it still as a great tree from which flourishing branches spread.

Lastly, I should emphasize that each of our congresses has another noble purpose: that of feeling increasingly more bound by a friendship which has its roots in science and in the common humanitarian profession and mission. However, all our efforts can