

# INTERNATIONAL TRENDS IN GENERAL THORACIC SURGERY



VOLUME **3**

## Benign Esophageal Disease

---

Tom R. DeMeester  
Hugoe R. Matthews

# INTERNATIONAL TRENDS IN GENERAL THORACIC SURGERY

VOLUME 3

## BENIGN ESOPHAGEAL DISEASE

*Edited by*

TOM R. DeMEESTER, M.D.

Professor and Chairman, Department of Surgery,  
Creighton University School of Medicine; Chief of Surgery,  
Saint Joseph Hospital, Omaha, Nebraska

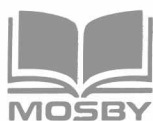
HUGOE R. MATTHEWS, F.R.C.S.

Senior Clinical Lecturer in Surgery,  
Department of Surgery, University of Birmingham;  
Consultant Thoracic Surgeon, Regional Department of Thoracic Surgery,  
East Birmingham Hospital, Birmingham, England

*with 190 illustrations, including 16 color plates*

The C. V. Mosby Company

ST. LOUIS • WASHINGTON, D.C. • TORONTO 1987



A TRADITION OF PUBLISHING EXCELLENCE

Editor: Thomas A. Manning  
Developmental editor: Elaine Steinborn  
Assistant editor: Laurel Fuller  
Project manager: Mark Spann  
Manuscript editor: Stephen C. Hetager  
Production: Radhika Rao Gupta, Donna L. Walls  
Design: Gail Morey Hudson

## VOLUME 3

**Copyright © 1987 by The C.V. Mosby Company**

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 prior written permission from the publisher.

Printed in the United States of America

The C.V. Mosby Company  
11830 Westline Industrial Drive, St. Louis, Missouri 63146

## Library of Congress Cataloging-in-Publication Data

Benign esophageal disease.

(International trends in general thoracic surgery; v. 3)

Includes bibliographies and index.

1. Esophagus—Surgery. 2. Esophagus—Diseases.

I. DeMeester, Tom R., 1938- . II. Matthews, Hugoe R. III. Series. [DNLM: 1. Esophageal Diseases. W1 IN914 v.3 / WI 250 B467]

RD539.5.B46 1987 617'.548 87-20427

ISBN 0-8016-2471-1

T/MV/MV 9 8 7 6 5 4 3 2 1 01/C/011

# INTERNATIONAL TRENDS IN GENERAL THORACIC SURGERY

## VOLUME 1

### LUNG CANCER

N. C. Delarue, Toronto, Canada  
H. Eschapasse, Toulouse, France

## VOLUME 2

### MAJOR CHALLENGES

H. Grillo, Boston, Massachusetts, U.S.A.  
H. Eschapasse, Toulouse, France

## VOLUME 3

### BENIGN ESOPHAGEAL DISEASE

T. R. DeMeester, Omaha, Nebraska, U.S.A.  
H. R. Matthews, Birmingham, U.K.

## *Forthcoming*

## VOLUME 4

### ESOPHAGEAL CANCER

N. C. Delarue, Toronto, Canada  
E. W. Wilkins, Jr., Boston, Massachusetts, U.S.A.  
J. Wong, Hong Kong

## VOLUME 5

### FRONTIERS, MEDIASTINUM, UNCOMMON PROBLEMS

N. Martini, New York, New York, U.S.A.  
I. Vogt-Moykopf, Heidelberg, F.R.G.

## VOLUME 6

### INFECTIVE LUNG DISEASE

B. T. LeRoux, Durban, South Africa  
D. Skinner, Chicago, Illinois, U.S.A.

## VOLUME 7

### THE PLEURAL SPACE

J. Deslauriers, Quebec City, Canada  
L. K. Lacquet, Nijmegen, Holland

## VOLUME 8

### PERIOPERATIVE MANAGEMENT IN THORACIC SURGERY

R. M. Peters, San Diego, California, U.S.A.  
J. Toledo, Madrid, Spain

## VOLUME 9

### CHEST INJURIES

A. Besson, Lausanne, Switzerland  
W. R. Webb, New Orleans, Louisiana, U.S.A.

## VOLUME 10

### GENERAL THORACIC SURGERY IN INFANTS AND CHILDREN

R. M. Filler, Toronto, Canada

## VOLUME 11

### CHEST PAIN

H. Urschel, Dallas, Texas, U.S.A.  
F. París, Valencia, Spain

# INTERNATIONAL TRENDS IN GENERAL THORACIC SURGERY

## Editors-in-Chief

N. C. DELARUE  
Toronto, Canada

H. ESCHAPASSE  
Toulouse, France

## North American Board

A. BAUE  
St. Louis

T. R. DeMEESTER  
Omaha

J. DESLAURIERS  
Quebec City

H. GRILLO  
Boston

L. HILL  
Seattle

C. HOLMES  
Los Angeles

N. MARTINI  
New York

C. MOUNTAIN  
Houston

S. PAYNE  
Rochester

F. G. PEARSON  
Toronto

D. SKINNER  
Chicago

H. URSCHER  
Dallas

## European Board

P. KESZLER  
Budapest, Hungary

L. K. LACQUET  
Nijmegen, Holland

H. R. MATTHEWS  
Birmingham, U.K.

K. MOGHISSI  
Hull, U.K.

F. PARIS  
Valencia, Spain

M. I. PERELMAN  
Moscow, U.S.S.R.

C. RICCI  
Rome, Italy

I. VOGT-MOYKOPF  
Heidelberg, F.R.G.

## International Board

H. AKIYAMA  
Tokyo, Japan

A. A. CONLAN  
Johannesburg, S.A.

V. GUARNER  
Salamanca, Mexico

G. J. HUANG  
Beijing, People's Republic of China

J. NIN VIVO  
Montevideo, Uruguay

M. MILANO  
Rosario, Argentina

L. SIMPSON  
Heidelberg, Australia

J. P. TEIXEIRA  
Rio de Janeiro, Brazil

D. WEISSBERG  
Holon, Israel

J. WONG  
Hong Kong

# Contributors

IAN P. ADAMS, B.Sc.

Medical Physiologist, The Oesophageal Laboratory, Regional Department of Thoracic Surgery, East Birmingham Hospital, Birmingham, England

*The laboratory in the diagnosis of esophageal disease*

RAYMOND A. AMOURY, M.D.

Katharine Berry Richardson Professor of Pediatric Surgery, University of Missouri–Kansas City School of Medicine; Surgeon-in-Chief, Department of Surgery, The Children's Mercy Hospital, Kansas City, Missouri

*Discussion: Children and reflux*

JEAN PIERRE ANGELCHIK, M.D., F.A.C.S., F.A.C.G.

Department of Surgery, Phoenix Baptist Hospital, Phoenix, Arizona

*Use of a prosthetic device to control gastroesophageal reflux*

PAUL DAVID ANGELCHIK, M.D.

Surgical Resident, Department of Surgery, University of Wisconsin Hospital and Clinics, Madison, Wisconsin

*Use of a prosthetic device to control gastroesophageal reflux*

MICHAEL ATKINSON, M.D., F.R.C.P.

Special Professor of Gastroenterology, Department of Surgery, University of Nottingham; Honorary Consultant Physician, University Hospital, Queens Medical Centre, Nottingham, England

*Discussion: Drug-induced esophageal injuries*

FERNANDO AZPIROZ, M.D.

Chief, Section of Gastrointestinal Research, Department of Gastroenterology, Vall D'Hebron Hospital, Barcelona, Spain

*Gastroesophageal reflux: the role of delayed gastric emptying and duodenogastric reflux*

JOHN BANCEWICZ, Ch.M., F.R.C.S.(Glasg.)

Senior Lecturer in Surgery, University of Manchester, Manchester, England; Consultant Surgeon, Hope Hospital, Salford, England

*Discussion: Principles of surgical treatment of gastroesophageal reflux*

GILLES BEAUCHAMP, M.D., F.R.C.S.

Associate Professor of Surgery, Department of Surgery, University of Montreal, Maisonneuve-Rosemont Hospital, Montreal, Quebec, Canada

*Discussion: Esophageal scintigraphy and tests of duodenogastric function*

PAOLO BECHI, M.D.

Associate Professor of Surgery, Department of Surgery, Patologia Chirurgica I, Florence, Italy

*Discussion: Gastroesophageal reflux: the role of delayed gastric emptying and duodenogastric reflux*

RONALD H. BELSEY, M.S.

Visiting Professor of Surgery, Department of Surgery, University of Chicago, Chicago, Illinois

*Personal reflections on standard antireflux procedures*

ADOLFO BENAGES, M.D.

Professor of Medicine and Director, Department of Internal Medicine, University of Murcia; Head, Service of Internal Medicine, Department of Internal Medicine, Hospital V. Arrixaca, Murcia, Spain

*Discussion: Pharyngeal dysphagia*

BRUNO BERTHET, M.D.

Interne des Hôpitaux, Département de Chirurgie Thoracique, Hôpital Salvator, Marseille, France

*Surgical management of caustic injuries to the upper gastrointestinal tract*

J. BOIX-OCHOA, M.D.

Professor of Pediatric Surgery, Department of Pediatrics, Autonomous University; Chief, Department of Pediatric Surgery, Children's Hospital Vall d'Hebron, Barcelona, Spain

*Children and reflux*

ELFRIEDE BOLLSCHWEILER, M.D., Dipl. Math.

Department of Surgery, Technical University of Munich and Klinikum rechts der Isar, Munich, Federal Republic of Germany

*Update on esophageal pH monitoring*

CEDRIC G. BREMNER, M.B., Ch.B., Ch.M., F.R.C.S.

Professor and Chief Surgeon, The University of the Witwatersrand; Chief Surgeon, Department of Surgery, Hillbrow and the Johannesburg Hospital, Johannesburg, South Africa

*Barrett's esophagus*

DONALD O. CASTELL, M.D.

Professor of Medicine and Chief of Gastroenterology, Bowman Gray School of Medicine; Chief of Gastroenterology, Department of Medicine, North Carolina Baptist Hospital, Winston-Salem, North Carolina

*Function of the normal human esophagus*

ROBERT E. CONDON, M.D., M.S., F.A.C.S.

Ausman Foundation Professor and Chairman, Department of Surgery, Medical College of Wisconsin; Chief of Surgery, Department of Surgery, Froedtert Memorial Lutheran Hospital and Milwaukee County Medical Complex, Milwaukee, Wisconsin

*Discussion: Management of failed Heller's operation*

TOM R. DeMEESTER, M.D.

Professor and Chairman, Department of Surgery, Creighton University School of Medicine; Chief of Surgery, Saint Joseph Hospital, Omaha, Nebraska

*Discussion: Update on esophageal pH monitoring*

*Definition, detection, and pathophysiology of gastroesophageal reflux disease*

JACQUES Di COSTANZO, M.D.

Réanimation Digestive, Clinique La Résidence du Parc, Marseille, France

*Surgical management of caustic injuries to the upper gastrointestinal tract*



R. DOM, M.D.

Professor, Department of Neuropathology, Catholic University of Leuven; Director, Laboratory of Neuropathology, Department of Neuropathology, University Hospital Gasthuisberg, Leuven, Belgium

*Cricopharyngeal myotomy for pharyngoesophageal diverticula*

ANDRÉ DURANCEAU, M.D.

Professor, Department of Surgery, University of Montreal; Head, Division of Thoracic Surgery, Department of Surgery, Hôtel-Dieu de Montréal, Montreal, Quebec, Canada

*Recent advances in esophageal manometry*

*Discussion: Cricopharyngeal myotomy for pharyngoesophageal diverticula*

J. E. DUSSEK, M.B.B.S., F.R.C.S.

Consultant Thoracic Surgeon, The Cardiothoracic Unit, Guys Hospital, London England

*Discussion: Recent advances in esophageal manometry*

F. HENRY ELLIS, Jr., M.D., Ph.D.

Clinical Professor of Surgery, Department of Surgery, Harvard Medical School, Boston, Massachusetts; Chief, Department of Surgery, Division of Thoracic and Cardiovascular Surgery, New England Deaconess Hospital and Lahey Clinic Medical Center, Boston, Massachusetts, and Burlington, Massachusetts

*Discussion: Personal reflections on standard antireflux procedures*

*Diffuse esophageal spasm and related disorders*

D. F. EVANS, Ph.D.

Lecturer in Surgery, Department of Surgery, The University of Nottingham, Nottingham, England

*Discussion: Definition, detection, and pathophysiology of gastroesophageal reflux disease*

FRANCOIS FEKETE, M.D.

Professor and Chairman, Department of Surgery, University of Paris VII, Paris, France; Chief, Department of Digestive Surgery, Hôpital Beaujon, Clichy, France

*Management of failed Heller's operation*

MARK K. FERGUSON, M.D.

Assistant Professor, Department of Surgery, University of Chicago Pritzker School of Medicine; Attending Physician, Department of Surgery, University of Chicago Medical Center, Chicago, Illinois

*Esophageal scintigraphy and tests of duodenogastric function*

*Principles of surgical treatment of gastroesophageal reflux*

JACQUES FIGARELLA, M.D.

Professor of Surgery, Faculté de Médecine, University of Marseille; Head, Department of General Surgery, Assistance Publique, Marseille, France

*Surgical management of caustic injuries to the upper gastrointestinal tract*

ANDRÉ GAUTHIER, M.D.

Professor of Surgery, Faculté de Médecine, University of Marseille; Hépatogastro-entérologie, Hôpital de la Conception, Marseille, France

*Surgical management of caustic injuries to the upper gastrointestinal tract*



HEIN G. GOOSZEN, M.D., Ph.D.

Department of Surgery, University Hospital Leiden, Leiden, The Netherlands

*Discussion: Management of failed antireflux procedures*

GEOFFREY M. GRAEBER, M.D.

Associate Professor, Department of Surgery, Uniformed Services University of the Health Sciences, Bethesda, Maryland; Director, Division of Surgery, Walter Reed Army Institute of Research; Staff Thoracic Surgeon, Walter Reed Army Medical Center, Washington, D.C.

*Reflux control in operations for achalasia*

JACQUES A. GRUWEZ, M.D., Hon.F.R.C.S.

Professor of Surgery, Clinical and Experimental Surgical Pathology; Head, Department of General Surgery, University Hospitals, Catholic University of Leuven, Leuven, Belgium

*Cricopharyngeal myotomy for pharyngoesophageal diverticula*

PAUL J. GUELINCKX, M.D.

Clinical and Experimental Surgery, Department of Developmental Biology and Surgical Pathology; Plastic and Reconstructive Surgery—Microsurgery, Department of General Surgery, U.Z. St. Pieter, Catholic University of Leuven, Leuven, Belgium

*Cricopharyngeal myotomy for pharyngoesophageal diverticula*

ROBERT D. HENDERSON, M.B., F.R.C.S.(C.), F.A.C.S.

Professor of Surgery, University of Toronto; Surgeon-in-Chief, Department of Surgery, Women's College Hospital, Toronto, Ontario, Canada

*Extended esophageal myotomy in the management of diffuse esophageal spasm*

LUCIUS D. HILL, M.D.

Clinical Professor of Surgery, Department of Surgery, University of Washington; Attending Staff and Teaching Staff, Department of Surgery, Swedish Medical Center and Virginia Mason Medical Center, Seattle, Washington

*Discussion: Management of failed antireflux procedures*

*Discussion: Management of reflux strictures*

Ö. P. HORVÁTH, M.D.

Department of Surgery, Medical University of Szeged, Szeged, Hungary

*Discussion: Surgical management of caustic injuries to the upper gastrointestinal tract*

GLYN G. JAMIESON, M.S., F.R.A.C.S., F.A.C.S.

Dorothy Mortlock Professor of Surgery, Department of Surgery, University of Adelaide; Professor of Surgery, Department of Surgery, Royal Adelaide Hospital, Adelaide, Australia

*Recent advances in esophageal manometry*

*Discussion: Cricopharyngeal myotomy for pharyngoesophageal diverticula*

LAWRENCE F. JOHNSON, M.D., F.A.C.P.

Professor of Medicine and Director, Digestive Disease Division, Uniformed Services University of the Health Sciences and F. Edward Hebert School of Medicine, Bethesda, Maryland; Attending Gastroenterologist, Department of Medicine, Walter Reed Army Medical Center, Washington, D.C.

*Discussion: The laboratory in the diagnosis of esophageal disease*

JACQUELINE JOUGLARD, M.D.

Centre Anti-Poison, Hôpital Salvator, Marseille, France

*Surgical management of caustic injuries to the upper gastrointestinal tract*

PHILIP O. KATZ, M.D., F.A.C.P.

Assistant Professor of Medicine, Department of Medicine/Digestive Disease, Johns Hopkins University; Division of Digestive Diseases, Francis Scott Key Medical Center, Baltimore, Maryland

*Function of the normal human esophagus*

EDWIN LAFONTAINE, M.D.

Assistant Professor of Surgery, Department of Surgery, University of Montreal; Attending Surgeon, Department of Surgery, Hôpital Hôtel-Dieu, Montreal, Quebec, Canada

*Pharyngeal dysphagia*

RÜDIGER LANGE, M.D.

Department of Surgery, Technical University of Munich and Klinikum rechts der Isar, Munich, Federal Republic of Germany

*Update on esophageal pH monitoring*

GERALD M. LARSON, M.D.

Associate Professor of Surgery, Department of Surgery, University of Louisville; Associate Professor of Surgery, Department of Surgery, Humana Hospital University, Louisville, Kentucky

*Discussion: Reflux associated with other disorders or lesions*

R. E. LEA, M.B., Ch.B., F.R.C.S.

Consultant Thoracic Surgeon, Wessex Regional Cardio-Thoracic Unit, Southampton General Hospital, Southampton, England

*Discussion: Reflux control in operations for achalasia*

GUIDO LEMAN, M.D.

Consultant Surgeon, Department of Surgery, Catholic University of Leuven and University Hospitals, Leuven, Belgium

*Cricopharyngeal myotomy for pharyngoesophageal diverticula*

TONI LERUT, M.D., F.A.C.S., F.A.C.C.P.

Associate Professor in Surgery, Department of Surgery, Catholic University of Leuven; Joint Clinical Head, Department of Surgery, U.Z. St. Rafael–St. Pieter, Leuven, Belgium

*Discussion: Diffuse esophageal spasm and related disorders*  
*Cricopharyngeal myotomy for pharyngoesophageal diverticula*

ALEX G. LITTLE, M.D.

Associate Professor, Department of Surgery, University of Chicago Pritzker School of Medicine; Chief, Section of Thoracic Surgery, Department of Surgery, University of Chicago Medical Center, Chicago, Illinois

*Proximal esophageal strictures*

HUGOE R. MATTHEWS, F.R.C.S.

Senior Clinical Lecturer in Surgery, Department of Surgery, University of Birmingham; Consultant Thoracic Surgeon, Regional Department of Thoracic Surgery, East Birmingham Hospital, Birmingham, England

*The laboratory in the diagnosis of esophageal disease*

K. MOGHISSI, M.D., F.R.C.S.(Eng.), F.R.C.S.(Ed.)

Consultant Cardiothoracic Surgeon, Humberside Cardiothoracic Surgical Centre, Hull, England

*Discussion: Proximal esophageal strictures*

PHILIPPE MONNIER, M.D.

Associate, Department of Otolaryngology–Head and Neck Surgery, University of Lausanne School of Medicine; Chief Resident, Ear, Nose and Throat Clinic, University Canton Hospital (CHUV), Lausanne, Switzerland

*New endoscopic techniques*

F. MORA, M.D.

Assistant Professor, Department of Internal Medicine, Facultad de Medicina, University of Valencia; Medical Assistant, Digestive Motility Unit, Department of Digestive Service, University Hospital, Valencia, Spain

*Discussion: Pharyngeal dysphagia*

KEITH S. NAUNHEIM, M.D.

Assistant Professor, Department of Surgery, St. Louis University Medical Center, St. Louis, Missouri

*Proximal esophageal strictures*

MICHEL JEAN NOIRCLERC, M.D.

Professor of Surgery, Department of Thoracic Surgery, School of Medicine, University of Marseille; Chief Surgeon, Hôpital Salvator, Marseille, France

*Surgical management of caustic injuries to the upper gastrointestinal tract*

DAVID D. OAKES, M.D.

Associate Professor of Surgery, Stanford University School of Medicine, Stanford, California; Chief, Division of General and Thoracic Surgery, Santa Clara Valley Medical Center, San Jose, California

*Drug-induced esophageal injuries*

MARK B. ORRINGER, M.D.

Professor and Head, Section of Thoracic Surgery, University of Michigan Medical Center, Ann Arbor, Michigan

*Management of failed antireflux procedures*

PETER C. PAIROLERO, M.D.

Professor of Surgery, Department of Surgery, Mayo Medical School and Mayo Clinic, Rochester, Minnesota

*Gastric secretion suppression and duodenal diversion: the Roux-en-Y principle in the management of complex reflux problems*

F. PARÍS, M.D.

Titular Professor of Surgery, University of Valencia; Head of Thoracic Surgery Service, Department of Surgery, Hospital General “La Fe,” Valencia, Spain

*Discussion: Extended esophageal myotomy in the management of diffuse esophageal spasm*

W. SPENCER PAYNE, M.D.

James C. Masson Professor of Surgery, Department of Surgery, Mayo Medical School; Consultant, Section of Thoracic and Cardiovascular Surgery, Mayo Clinic and Mayo Foundation, Rochester Methodist Hospital and Saint Mary’s Hospital, Rochester, Minnesota

*Gastric secretion suppression and duodenal diversion: the Roux-en-Y principle in the management of complex reflux problems*

F. GRIFFITH PEARSON, M.D., F.R.C.S.(C.), F.A.C.S.

Professor of Surgery, Department of Surgery, University of Toronto; Surgeon-in-Chief, Department of Surgery, Toronto General Hospital, Toronto, Ontario, Canada

*Discussion: Barrett's esophagus*

JEFFREY M. PIEHLER, M.D.

Associate Professor of Surgery, Mayo Medical School; Consultant, Section of Thoracic and Cardiovascular Surgery, Mayo Clinic and Mayo Foundation, Rochester, Minnesota

*Gastric secretion suppression and duodenal diversion: the Roux-en-Y principle in the management of complex reflux problems*

HIRAM C. POLK, Jr., M.D.

Professor and Chairman, Department of Surgery, University of Louisville, Louisville, Kentucky

*Discussion: Reflux associated with other disorders or lesions*

JAMES W. RYAN, M.D.

Associate Professor, Department of Radiology; Associate Director, Section of Nuclear Medicine, Department of Radiology, University of Chicago, Chicago, Illinois

*Esophageal scintigraphy and tests of duodenogastric function*

BERNARD SASTRE, M.D.

Professor of Surgery, Faculté de Médecine, University of Marseille; Service de Chirurgie Générale et Digestive, Hôpital Sainte-Marguerite, Marseille, France

*Surgical management of caustic injuries to the upper gastrointestinal tract*

MARCEL SAVARY, M.D.

Professor and Chairman, Department of Otolaryngology–Head and Neck Surgery, University of Lausanne School of Medicine, Lausanne, Switzerland

*New endoscopic techniques*

JOHN P. SHERCK, M.D.

Clinical Associate Professor of Surgery, Department of Surgery, Stanford University Medical School, Stanford, California; Department of Surgery, Santa Clara Valley Medical Center, San Jose, California

*Drug-induced esophageal injuries*

J. RÜDIGER SIEWERT, M.D., F.A.C.S.

Professor of Surgery, Department of Surgery, Technical University of Munich, Munich, Federal Republic of Germany

*Update on esophageal pH monitoring*

DAVID B. SKINNER, M.D.

Dallas B. Phemister Professor of Surgery, Department of Surgery, University of Chicago Pritzker School of Medicine; Chairman, Department of Surgery, University of Chicago Hospitals and Clinics, Chicago, Illinois

*Principles of surgical treatment of gastroesophageal reflux*

ROBIN BARKER SMITH, M.D., Ch.M., F.R.C.S.

Consultant Surgeon, General Surgery, Royal United Hospital, Bath, England

*Reflux associated with other disorders or lesions*

JOHN SPENCER, M.S., F.R.C.S.(Eng.)

Reader, Department of Surgery, Royal Postgraduate Medical School; Consultant Surgeon, Hammersmith Hospital, London, England

*Discussion: Gastric secretion suppression and duodenal diversion: the Roux-en-Y principle in the management of complex reflux problems*

RAYMOND TAILLEFER, M.D., F.R.C.P.(C.)

Assistant Professor of Nuclear Medicine, Department of Radiology, University of Montreal; Specialist in Nuclear Medicine, Department of Radiology, Hôpital Hôtel-Dieu de Montréal, Montreal, Quebec, Canada

*Discussion: Esophageal scintigraphy and tests of duodenogastric function*

JOHN G. TEMPLE, M.B., Ch.M., F.R.C.S.(Ed.), F.R.C.S.(Eng.)

Senior Clinical Lecturer, Department of Surgery, University of Birmingham; Department of Surgery, Queen Elizabeth Hospital, Birmingham, England

*Discussion: Use of a prosthetic device to control gastroesophageal reflux*

J. L. TERPSTRA, M.D., Ph.D.

Surgical Department, University Hospital, Leiden, The Netherlands

*Discussion: Management of failed antireflux procedures*

GEOFFREY B. THOMPSON, M.D.

Fellow, Department of Surgery, Mayo Graduate School of Medicine; Senior Resident, Department of General Surgery, Mayo Clinic, Rochester, Minnesota

*Gastric secretion suppression and duodenal diversion: the Roux-en-Y principle in the management of complex reflux problems*

M. TOMAS-RIDOCCI, M.D.

Assistant Professor, Department of Internal Medicine, School of Medicine, University of Valencia; Head of Digestive Motility Unit, Department of Gastrointestinal Service, University Hospital, Valencia, Spain

*Discussion: Extended esophageal myotomy in the management of diffuse esophageal spasm*

VICTOR F. TRASTEK, M.D.

Assistant Professor of Surgery, Department of Surgery, Mayo Medical School; Consultant, Section of Thoracic and Cardiovascular Surgery, Mayo Clinic and Mayo Foundation, Rochester Methodist Hospital and St. Mary's Hospital, Rochester, Minnesota

*Gastric secretion suppression and duodenal diversion: the Roux-en-Y principle in the management of complex reflux problems*

J. VANDEKERKHOF, M.D.

Department of Surgery, Catholic University of Leuven and University Hospitals, Leuven, Belgium  
*Cricopharyngeal myotomy for pharyngoesophageal diverticula*

G. VANTRAPPEN, M.D., Ph.D.

Professor of Medicine, Department of Medicine, University of Leuven; Head, Department of Medicine and Division of Gastroenterology, University Hospital Gasthuisberg, Leuven, Belgium

*Discussion: Function of the normal human esophagus*

ANTHONY WATSON, M.B., Ch.B., M.D., F.R.C.S.

Consultant Surgeon, Department of Surgery, Royal Lancaster Infirmary, Lancaster, England;  
Associate Professor of Surgery, Department of Surgery, Creighton University School of Medicine,  
Omaha, Nebraska

*Management of reflux strictures*

HANS-FRED WEISER, M.D.

Department of Surgery, Technical University of Munich and Klinikum rechts der Isar, Munich,  
Federal Republic of Germany

*Update on esophageal pH monitoring*

ROY K. H. WONG, M.D., F.A.C.P.

Assistant Professor, Department of Medicine, Uniformed Services University of the Health  
Sciences, Bethesda, Maryland; Director of Clinical Services, Department of Gastroenterology,  
Walter Reed Army Medical Center, Washington, D.C.

*Reflux control in operations for achalasia*

# Foreword

General thoracic surgery already has a glorious past. It has given birth to the modern discipline of cardiovascular surgery and has seen the prodigious growth of that discipline. It has developed the fundamental techniques of intrathoracic operations. The time has come to recognize the specialty of general thoracic surgery as a full-fledged discipline that is in the process of becoming progressively more distinct and unique. In many teaching centers it is already separated from both general surgical service and cardiovascular disciplines. The separate status presently held honors the surgical pioneers who made this recognition inevitable. However, continuing advances will require effective exchange of new ideas and steady reinforcement of the sense of identity that must remain the cornerstone of the edifice that has earned these past accolades. By stimulating the dialogue necessary for these goals to be attained, the current series of books is designed to help in generating an equally bright future.

Although an enormous volume of information is available in textbooks, monographs, and journals concerning matters the practicing general thoracic surgeon may find of great interest, retrieval of information is not always simple. Textbooks may not contain the most up-to-date information because of their extended publication schedules. Relevant articles may be in journals that do not primarily relate to the individual specialty and therefore are overlooked. In addition, the language problem militates significantly against the ready transfer of information from one country to another. It was in an attempt to bridge these sorts of gaps that *International Trends in General Thoracic Surgery* was designed. We believe this forum will most effectively convey new information in relation to the practical aspects of actual patient care as well as emphasize the clinical application of the material.

This series of books was developed to deliberately foster international interplay on relevant topics as expeditiously as possible. Initially, biennial publication was planned, but the enthusiastic reception given the proposal led to an expansion of the horizons and an annual publica-

tion schedule. As the concept was refined, it was agreed that, as a general principle, an attempt should be made to cover major subjects in single-topic issues and provide a forum for discussion of other topics and diseases in multitopic volumes released in an alternating sequence. Editorial boards were chosen to ensure that attention would be drawn to new and important contributions from all geographic areas, thereby providing the broadest possible audience at the earliest possible moment. The contributors were asked to stress their personal concepts and proposals in order to engender a worthwhile exchange of opinions that would ultimately prove informative and stimulating for an international readership.

Coverage will be restricted to general thoracic surgical problems (including esophageal diseases), and no attempt will be made to include cardiovascular topics. Although emphasis will be placed on the practical aspects of patient care, an attempt will be made to review the relevant historical background whenever necessary for better understanding of complex issues. The application of new basic and clinical investigative studies will be discussed in their clinical contexts in order to maintain the emphasis on practical clinical issues.

We believe that by following the plan just outlined, this series of books will pay particular attention to the needs of the specific target groups for whom the books are intended: practicing general thoracic surgeons, general thoracic surgical trainees, referring physicians (including respirologists and gastroenterologists), and of course the reference resources housed in university, hospital, and inservice libraries. In most instances, the information presented will also be of particular interest to many other allied disciplines, notably oncologists, radiotherapists, otolaryngologists, emergency care physicians, and general internists.

North American and European editorial boards have been created to meet annually to select topics for consideration and choose knowledgeable authors who are best able to present the requested information from a broad base of



clinical experience. An international advisory board has also been constituted to ensure an effective international approach to the process of topic selection and author choice. The editors-in-chief wish to acknowledge their indebtedness to the many members of these various boards, who have accepted their responsibilities conscientiously and effectively.

Undoubtedly, as time passes, the manner in which editorial policy is pursued in attempting to achieve these objectives may well change as part of a natural evolutionary process. Nonetheless, if the fundamental aim continues to represent the basis for future decisions, we feel that the developing series will provide a useful purpose—provided the books satisfy the requirements of the target audiences. The editorial boards are determined to make every effort to merit a continuing favorable reception, since it is clearly recognized that readership acceptance must be the final arbiter of the books' value.

The editors-in-chief would be remiss indeed were they not to express—on behalf of all the board members—their warm appreciation of the efforts made by the guest editors and those who have contributed in such willing fashion to ensure that the goals established for this ongoing series are met. Its eventual success will, assuredly,

depend entirely on the dedicated fashion in which they have accepted their responsibilities.

The appearance of thoracic surgical units in teaching hospitals ensures the availability of consultative services that will provide knowledgeable advice regarding the indications for surgical investigation and treatment as well as experienced management of serious postoperative problems. It is to be hoped that the books in this series will support and strengthen the role of these units in clarifying those situations in which complex issues and unusual pathologic conditions require highly sophisticated—rather than routine or traditional—therapeutic approaches.

The W.B. Saunders Company published the first two volumes (*Lung Cancer* and *Major Challenges*). With the release of volume 3, The C.V. Mosby Company takes on the responsibility for publication. The editors-in-chief join with the guest editors and their authors in expressing sincere appreciation to Thomas Manning and Elaine Steinborn for their enthusiastic support and knowledgeable guidance in the production of the current volume and for their sensible advice in the planning of future issues.

NORMAN C. DELARUE  
HENRY ESCHAPASSE

# Preface

Progress in surgery depends upon experience in the care of patients with diseases amenable to surgical therapy, accurate record keeping of the experience, reflection on the experience, structuring of subsequent clinical experience or laboratory models to answer questions raised by the reflection, and communication of the results of these inquiries to others in a convincing, rational manner.

Those experienced in this art realize that after all the effort, it takes years before their concepts are accepted, if ever, by their peers. We all are biased in favor of our own analytical abilities and become skillful in defending them, as well as in modifying the concepts of others in an effort to support our own thoughts. The process is called discussion, and is enjoyed by the spectator or reader as much as any sport. It is fueled by ego, jealousy, popularity, economics, altruism, and the love for travel. Hopefully what emerges is truth, and surprisingly it often is—if the point of view

is pertinent, if there are no ongoing economic pressures to suppress it, and if those who have defended most eloquently their concepts, though erroneous, have reached ages at which they no longer have the energy or the desire to rise again.

What follows in this book reflects this process. The subject is benign esophageal disease, and the essayists and discussants come from around the world. As a consequence, the reader is exposed to various views, some conflicting, and to the current thinking regarding esophageal physiology, diagnosis of esophageal disease, gastroesophageal reflux disease, esophageal strictures, and motility disorders. The authors are well known, have first-hand experience with the issues they address or discuss, and are skilled in communication. The reader will be entertained while being instructed.

TOM R. DEMEESTER  
HUGOE R. MATTHEWS