

**FRONTIERS
IN
GASTROINTESTINAL
CANCER**

Edited by
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ELSEVIER

New York • Amsterdam • Oxford

Elsevier Science Publishing Co., Inc.
52 Vanderbilt Avenue, New York, New York 10017

Distributors outside the United States and Canada

Elsevier Science Publishers B.V.
P.O. Box 211, 1000 AE Amsterdam, The Netherlands

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ISBN 0-444-00852-7

ISSN 0743-930X

Manufactured in the United States of America

PREFACE

Gastrointestinal cancer continues to be a significant factor in much human suffering. Unknown causes, changing epidemiological patterns, the difficulty of early diagnosis, and the apparent resistance of some malignancies to chemotherapeutic agents all serve to heighten the immense clinical and scientific challenges faced by the investigator and practicing physician.

The critical reader may well consider the term "frontiers" to be rather presumptuous. However, we feel that this volume does present a selection of important topics that convey some of the exciting scientific and clinical advances in this field. Distinguished investigators responded enthusiastically to our invitation to contribute manuscripts. We specifically requested them to discuss their own work in the context of the overall area. These "minireviews" cover topics ranging from etiology, pathogenesis, histopathology, and experimental carcinogenesis to therapy. We believe that our authors have succeeded admirably but will leave to the reader the ultimate judgment of our failure or success. At the very least, we hope we have been able to stimulate interest and controversy in this important area.

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Bernard Levin and Robert H. Riddell, *Editors-in-Chief*

CONTENTS

Preface	xi
Contributors	xiii

DIET AND ENVIRONMENT IN THE ETIOLOGY OF ESOPHAGEAL CARCINOMA	1
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Kambiz Dowlatshahi and Sohrab Mobarhan

Geographic Incidence	1
Nutritional Factors	8
Discussion	12
Summary	13

LYMPHOID PROLIFERATIONS OF THE GASTROINTESTINAL TRACT	19
--	-----------

Leonard B. Kahn and Rabia Mir

Lymphoid Hyperplasia	19
Lymphoma	24

CHEMOTHERAPY OF ADVANCED GASTROINTESTINAL MALIGNANCIES	41
---	-----------

Frederick P. Smith, Steven Lange, Robert Silgals,
and Philip S. Schein

Esophageal Cancer	41
Gastric Cancer	43
Pancreatic Cancer	48
Colorectal Cancer	51
Conclusion	53

PANCREATIC CANCER IN THE HAMSTER MODEL	61
Parviz M. Pour and Terence A. Lawson	
Characterization of the Model	61
Pancreatic Carcinogens and Their Metabolism	62
Histogenesis of Pancreatic Cancer	63
Mechanisms of Pancreatic Carcinogenesis	70
Modification of Pancreatic Carcinogenesis	74
Biologic Marker of Experimental Pancreatic Cancer	75
Comparative Studies	75
Suggested Direction of Future Work	76
 PATHOPHYSIOLOGY OF ANOREXIA AND DISTURBANCES OF TASTE IN CANCER PATIENTS	 81
William D. DeWys and Freddie Ann Hoffman	
Pathophysiology of Cancer Cachexia	81
Control of Food Intake	83
Taste Abnormalities in Cancer Patients	84
Learned Food Aversions and Eating	87
Therapeutic Considerations	87
 ANTITUMOR EFFECT OF INDOMETHACIN IN RATS WITH AUTOCHTHONOUS INTESTINAL TUMORS	 91
Morris Pollard	
Model Tumor Systems	91
Stages of Carcinogenesis	92
The Lobund Experimental Protocol for Intestinal Cancer	92
Applications of the Model Tumor System	95
Discussion	99
Addendum	101
 LARGE BOWEL CARCINOMA: SIGNIFICANCE OF LYMPH NODE REACTIONS	 105
Richard C. Nairn and Eric Pihl	
Lymph Node Immunomorphology	106
Prognostic Significance of Lymph Node Patterns	108
Humoral Antibody Production by Regional Lymph Nodes	113
Cell-Mediated Immunity (CMI)	113
Antibody-Dependent Cellular Cytotoxicity (ADCC)	114
Natural Killer (NK) Cell Cytotoxicity, Histiocytes, and Macrophages	114
Conclusions and Outlook on the Future	115
 EXPERIMENTAL CHEMOTHERAPY IN COLON CANCER	 119
Janet A. Houghton and Peter J. Houghton	
The Model	120
Sensitivity of Tumors to 5-fluorouracil (FUra)	120
Metabolism of 5-fluorouracil	121
Mechanism of Cytotoxicity of 5-fluorouracil in Human Colorectal Xenografts	123

Natural Resistance of Human Colorectal Xenografts to 5-fluorouracil	124
Increased Formation of the Covalent Ternary Complex	126
Selective Protection of the Host During Therapy with 5-fluorouracil	127
Selective Increase in 5-fluorouracil Activation in Tumors	129
Conclusions and Future Directions	132

CONTROL OF EXPERIMENTAL COLON CANCER BY SODIUM CYANATE

139

Vincent G. Allfrey

Cyanate Inhibition of Protein and DNA Synthesis in Tumor Cells In Vivo	139
Cyanate Activation for Suppression of Protein Synthesis in Cultured Tumor Cells	141
Mechanism of Cyanate Inhibition of Protein Synthesis	145
Induction of Cyanate Sensitivity in Cells Transformed by an Oncogenic Virus	147
Butyrate Effects on Cyanate Sensitivity of Cultured Tumor Cells	147
Cyanate Inhibition of Growth of Murine Colonic Tumors	148

HEPATIC ARTERIAL THERAPIES FOR PRIMARY AND SECONDARY HEPATIC CARCINOMAS

153

William D. Ensminger and John W. Gyves

Perspectives on Regional Therapy for Hepatic Cancers	153
Rationale for Hepatic Arterial Chemotherapy	154
Problems Unique to Hepatic Arterial Chemotherapy	154
Hepatic Arterial Versus Systemic Chemotherapy for Hepatic Tumor	156
Tumor Microcirculation	157
Effects of Vasoconstrictors on Liver and Tumor Microcirculation	158
Microspheres to Improve Selectivity Based in Microcirculation Differences	159
Amplification of the Selective Effect of Yttrium-90 Microspheres	160
Prospects for Success with an Aggressive Integrated Approach	160
Concluding Remarks	161

DIET AND ENVIRONMENT IN THE ETIOLOGY OF GASTRIC CANCER

167

J. V. Joossens and J. Geboers

Nonenvironmental Factors	167
Dietary and Environmental Factors	168
The Gastric Cancer-Stroke Relationship	178
Summary	179

THE SIGNIFICANCE OF CHROMOSOMAL CHANGES IN HUMAN LARGE BOWEL TUMORS

185

Amelia Reichmann and Bernard Levin

Chromosomal Abnormalities in Human Large Bowel Tumors	185
Karyotypic Patterns and the Correlation with Anatomic Distribution in Large Bowel Tumors	188

The Relationship Between Chromosomal Abnormalities and Embryologic and Physiologic Characteristics	188
Benign Colonic Adenomas and Their Premalignant Potential	189
Significance of Chromosomal Changes in Human Large Bowel Tumors	190
Glossary of Cytogenetic Terms	190
 CELL CLONING TECHNIQUES IN THE SELECTION OF CHEMOTHERAPEUTIC AGENTS FOR GASTROINTESTINAL TUMORS	 193
David M. Loesch, Gary M. Clark, and Daniel D. Von Hoff	
Materials and Methods	193
Results	195
Discussion	200
 COST-EFFECTIVENESS OF COLORECTAL CANCER SCREENING	 203
David M. Eddy	
Methods	203
Results	206
Variations	212
Summary and Conclusions	217
 RADIOLABELED ANTIBODIES IN THE TREATMENT OF PRIMARY LIVER MALIGNANCIES	 221
Stanley E. Order, Jerry L. Klein, Peter K. Leichner, Moody D. Wharam, Jeannie Chambers, Ken Kopher, David S. Ettinger, and Stanley S. Seigelman	
Antigens	222
Initial Pilot Studies of Primary Liver Tumors	223
Toxicity	223
Response	224
Intrahepatic Biliary Carcinoma	225
Present Conclusions	226
New Approaches	231
 THE ROLE OF HEPATITIS B VIRUS IN PRIMARY HEPATOCELLULAR CARCINOMA	 235
Arie J. Zuckerman	
Properties of Hepatitis B Virus and Serologic Markers of Infection	236
The Carrier State of Hepatitis B Virus	238
Epidemiologic and Geographic Correlations Between Hepatitis B Infection and Primary Hepatocellular Carcinoma	239
Production of Hepatitis B Surface Antigen by Cell Lines Derived from Human Hepatocellular Carcinoma	240
Integration of Hepatitis B Viral DNA in the PLC/PRF/5 Cell Line	241
Heterotransplantability of the PLC/PRF/5 Cells	242

Integration of Hepatitis B Virus DNA into the Genome of Liver Cells	243
Animal Viruses That Are Phylogenetically Related to Human Hepatitis B Virus	245
MECHANISMS OF ADENOMA FORMATION IN THE COLON	249
Alain P. Maskens	
The Tubular Adenoma	249
Successive Phases in the Emergence of a Tubular Adenoma	250
Mechanisms of Adenoma Formation	255
Summary and Conclusions	257
ADJUVANT CHEMOTHERAPY AND IMMUNOTHERAPY OF GASTROINTESTINAL CANCER	261
John Y. Killen, Jr. and Susan S. Ellenberg	
Principles of Adjuvant Therapy of Cancer	261
Gastric Cancer	262
Colon Cancer	264
Rectal Cancer	268
Esophageal Cancer	269
Exocrine Pancreatic Cancer	270
Conclusions	270
RADIATION THERAPY IN THE MANAGEMENT OF GASTROINTESTINAL CANCER	273
Leonard L. Gunderson, Daniel E. Dosoretz, Gene Kopelson, Joel E. Tepper, Tyvin A. Rich, and R. Bruce Hoskins	
Esophageal Cancer	273
Gastric Cancer	274
Gallbladder and Extrahepatic Biliary Ducts	276
Pancreatic Carcinoma	277
Colorectal Cancer	280
Summary and Future Perspectives	286
LARGE BOWEL CARCINOMA: SIGNIFICANCE OF VENOUS INVASION	291
I. C. Talbot	
Identification of Venous Invasion	292
Incidence of Venous Invasion	293
Importance of Venous Invasion in Dissemination of Colorectal Cancer	294
Venous Invasion as an Indicator of Prognosis	294
Biologic Phenomenon of Venous Invasion and Its Relationship to Tumor Behavior	296
Suspected but Unproven Venous Invasion	301
Discussion	303
Summary and Conclusions	304

CANCER IN BARRETT'S ESOPHAGUS AND INFLAMMATORY BOWEL DISEASE—WHAT'S NEW	307
Robert H. Riddell, Helmut Schmidt, and Bernard Levin	
Barrett's Esophagus	307
Heterotopic Gastric Mucosa	311
Inflammatory Bowel Disease and Neoplasia	313
 Index	 321

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In most parts of the world, carcinoma of the esophagus is a rare disease. The incidence in the United States and Europe is 3 to 4 per 100,000 population per annum (Cutler and Young, 1975; Doll et al., 1970). In certain other areas, this rate increases more than twentyfold to almost 100 new cases per 100,000 population per annum, and esophageal cancer becomes the most frequently occurring neoplasm in the community (see Figures 1 and 2).

GEOGRAPHIC INCIDENCE

The sharp geographic demarcation between regions of high incidence of esophageal cancer and relatively close neighboring areas with a much lower incidence, such as in northeast Iran, has given rise to a great deal of scientific debate regarding the role of nutritional deficiencies and environmental carcinogens and their possible reciprocal interaction in the development of esophageal cancer. In recent years, a significant body of epidemiologic and biologic studies has accumulated suggesting that dietary factors, particularly micronutrients such as trace elements and vitamins, could influence carcinogenesis. These may act by modifying the activity of either carcinogens or host protective mechanisms against cancer. Esophageal cancer has a strong association with malnutrition secondary to poor economic conditions, special dietary habits, and/or alcoholism.

In our discussion, we will distinguish the predisposing factors, such as the nutritional status, from the promoting factors or carcinogens that act directly on the esophageal mucosa.

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