<table>
<thead>
<tr>
<th>項目</th>
<th>内容</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>表紙ほか</td>
</tr>
<tr>
<td>Author(s)</td>
<td></td>
</tr>
<tr>
<td>Citation</td>
<td>日本外科宝函 集英社</td>
</tr>
<tr>
<td>Issue Date</td>
<td>1986-01-01</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://hdl.handle.net/208605">http://hdl.handle.net/208605</a></td>
</tr>
<tr>
<td>Right</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>others</td>
</tr>
<tr>
<td>Textversion</td>
<td>publisher</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

京都大学学術情報リポジトリ
## CONTENTS OF VOLUME 55

### Topics

- Clinical Usefulness of Sensory Evoked Potentials ........................................... Kouzo Moritke (1)
- Total Hip Replacement ................................................................. Hideo Okumura (295)
- Selective Arterial Secretin Injection Test for Localization of the Functioning Gastrinoma ........................................ Masayuki Imamura (379)
- Fate of Aortocoronary Vein Graft .................................................. Yoshifumi Okamoto (495)
- Etiology and Treatment of Intrahepatic Stones —— Nobuaki Kobayashi (641)
- A Role of Hepatic Surgery on Hepatoma and Following Problems in Future .................................................. Junji Tanaka (753)

### Original Articles

- Mechanism of Formation of Bilirubin Calcium Stones and Black Stones .......................... Yorinori Hikasa, et al (3)
- The Studies on the Cerebral Blood Volume and Brain Metabolism in the Experimental Brain Ischemia .................. Akira Kobayashi (25)
- A Study of Sensitivity of Esophageal Cancer to Anticancer Agents ............................ Norio Matsumoto (58)
- Studies on Some Problems Regarding the Cardiac Closing Mechanism .......................... Hideaki Nagasawa (70)
- Effect of VIP on the Cardiac Closing Mechanism and Pathophysiology of Achalasia of the Esophagus .................. Akira Tangoku (81)
- Clinical Evaluation of Mitochondrial Creatine Kinase Level in Human Tumors ............. Ryoichi Shimizu (96)
- Studies on Changes in Endocrine Function of Experimental Chronic Pancreatic Injuries .................. Tanoshi Yatagai (106)
- Cancer Development in the Gastric Remnant, Especially the Effect of Bile Acids .................. Kohei Misaki (121)
- A Clinical Study on Congenital Biliary Dilatation Comparison of Cystic Type vs Cylindrical-Fusiform Type ............. Yasuo Nakashima, et al (132)
- An Experimental Study on Congenital Biliary Dilatation .................................. Yasuo Nakashima (144)
- A Clinical Study on Massive Bowel Resection ........................................ Tetsuji Hanafusa, et al (171)
- Effects of an Artificial Intestinal Valve on Massive Bowel Resection .......................... Tetsuji Hanafusa (178)
- A Clinical Study on an Artificial Intestinal Valve ........................................ Tetsuji Hanafusa, et al (202)
- Studies on Hyperthermic Chemotherapy for Cancer of the Rectum: Especially the Intraluminal Administration with Pefusion of Adriamycin Containing Warmed Saline Solution ........................................... Akitoshi Kudo (212)
- A Clinico-pathological Study on Local Extension in Musculoskeletal Sarcoma ............. Taiho Shibata, et al (224)
- Experimental Study on the Prevention of Vasospasm Following Subarachnoid Hemorrhage by a Thromboxane A2 Synthetase Inhibitor, OKY-046 ........................................ Shigeaki Ohsugi (297)
Eosinophilia in the Patients with Carcinomas of the Stomach and Colon, Release of Eosinophilopoietic Factor from Carcinoma Tissue.................TATAMI KAJIWARA (306)

Experimental and Clinical Studies on Exocrine and Endocrine Gastric Functions Following Pancreatoduodenectomy with Preservation of the Stomach .................................................................HWI-CHA KIM (314)

Clinico-Pathological Studies and the Result of Surgical Treatment of Esophageal Cancer .................................................................HIROTO HAYASHI (334)

Effect of Hepatic Vagotomy on the Function of Biliary Tract and Periarterial Sympathectomy of the Common Hepatic Artery as a Countermeasure .............................................................HIDEO ARIYOSHI (346)

Percutaneous Microwave Tissue Coagulation in Liver Biopsy:
Experimental and Clinical Studies ..........................................................YOJI TABUSE, et al (381)

Biomechanical Effects of Innominate Osteotomy ........................................WOLFGANG KÜSSWETTER, et al (393)

Regeneration of Cirrhotic Remnant Liver after Partial Hepatectomy, Especially the Relationship between Insulin Receptor and Hepatic Regeneration ..............................................................HIDESHIMORIOKA (403)

Clinical and Experimental Investigations on Pathogenesis of Gastric Mucosal Injury in Pancreatic Insufficiency
(1) Observations in Patients with Pancreatic Disease ..................................SHUHEI HASHIDA (415)

Clinical and Experimental Evaluation of the Pathogenesis of Gastric Mucosal Injury in Pancreatic Insufficiency
(2) Changes of the Gastric Mucosal Blood Flow in Dogs ...........................SHUHEI HASHIDA (430)

Immunological Studies on the Colorectal Cancer ........................................MASAAKI FUNAMOTO (442)

Dynamics of Coagulation-Fibrinolysis by Catecholamine in Shock ...............HIRONORI KANeko (452)

Experimental Studies on Tolerance of Brain to Ischemia Following Occlusion of Cerebral Arteries with Respect to Electrophysiological Parameters ..............................................................HIDYUKI SUWA (497)

The Role of VIP in the Experimental Dumping as an Humoral Factor ..............HIKARU HARADA (519)

Effect of Secretin and Vasoactive Intestinal Polypeptide on Mucosal Defensive Factors in Cysteamine-Induced Duodenal Ulcer ..........................NORIFUMI JOHN (533)

Mechanism of Prevention against Stress Ulcer by Vagotomy and Famotidine: Viewed from Transmucosal Potential Difference and Histamine Stain by a Fluorescence Histochemical Method ......................EICHI YOSHINAGA (545)

Development of a Bioassay of Opsonic Activity for Kupffer Cell and Humoral Factors Stimulating Phagocytosis ..............................................................SHIGEKI ARII (643)

Biological Significance and Prognostic Role of Opsonic Activity for Kupffer Cell Phagocytosis in Experimental Liver Injuries and Partially Hepatectomized Patients ..................................SHIGEKI ARII (653)

Experimental Studies on Influences of Portal Vein Interruption on the Pancreas .............................................................KOUSHUKE SHIMADA (662)

Acute Effects of \( 1-[\text{Bis (4-fluorophenyl) methyl}]-4-(2, 3, 4-trimethoxybenzyl) \) peperazine dihydrochloride, KB-2796, on the Cerebral Blood Flow in Unanesthetized Cats ..............................................................TOSHIRO KANAZAWA, et al (682)

A Study of the Synergy of Microwave Coagulation and Streptococcal Preparation (OK-432) in Experimental Tumor in Regard to the Interleukin 2 Producing Activity ..........................................................HIROKI YAMAUE, et al (689)

The Influence of Laparotomy-Related Stress on Gastric Secretion ............................SUMIKAZU OKA (700)
Effects of 1-[bis(4-fluorophenyl)methyl-4-(2, 3, 4-trimethoxybenzyl) piperazine dihydrochloride, a New Synthesized Ca 2+ blocker KB-2796, on Free Fatty Acid Liberation in Ischemic Brain in Rats........................................TOSHIRO KANAZAWA, et al (755)
Refobacin Concentration in Blood Serum, Urine and Wound Secretion:
A Comparative Study of Refobacin-Palacos and Implast-Gentamicin in Total Hip Replacement .............................................................L. RABENSEIFNER, et al (762)

Clinical Studies

Stable Cementless Wrist Prosthesis (SCW prosthesis) ...........................................YASUO UEBA, et al (242)
Treatment of the Occlusive Cerebrovascular Disease with a Selective Thromboxane A2 Synthetase Inhibitor ........................................SCHINICHIRO OKAMOTO, et al (251)
Principles of Treatment for Cancer of the Esophagus in Our Department .................................................................MASAYUKI IMAMURA, et al (260)
Application of Solid Low Residue Diet Consisting Mainly of Elemental Diet in Colorectal Diseases .................................................................Yozo Aoki, et al (358)
Studies on the Concentration of Lipid Peroxide in Plasma and Erythrocytes during Cardiopulmonary Bypass ........................................RYUKO TABATA, et al (367)
Application of Endoscopic Papillotomy to Carcinoma of the Duodenal Papilla:
As Jaundice Reducing Treatment and as Pre-treatment of Laser Irradiation.................................................................HITOSUKE KATUSDA, et al (467)
Prevention of Vasospasm Following Subarachnoid Hemorrhage Using a Thromboxane A2 Synthetase Inhibitor (OKY-046):
Clinical Study among Multiple Institutions .............................................................YASUHIRO YONEKAWA, et al (473)
Clinical Experience of Intraln .................................................................MASATSUNE ISHIKAWA, et al (485)
Intra-Aortic Balloon Pumping in Infants .............................................................HIROYUKI FUKUMASU, et al (561)
Unfavorable Effect of Abdominal Arteriography on
Obstructive Jaundice ........................................................................YOSHIKATSU OKADA, et al (573)
Clinical Analysis of long-Term Administration of Glyceol ................................MASATSUNE ISHIKAWA, et al (585)
Abdominal Surgery in Patients with Heart Block with Cardiac Pacemaker in Place .....................................................TAKAAKI SUDO, et al (597)
Treatment of Cerebral Infarction in the Acute Stage with Synthetic Antithrombin MD-805:
Clinical Study among Multiple Institutions .............................................................YASUHIRO YONEKAWA, et al (711)
Clinical Application of the Urokinase-Immobilized Polyurethane Catheter ..........................MASAHIKO MATSUMOTO (727)
Analysis of Microvascular Decompression for the Treatment of
Trigeminal Neuralgia and Hemifacial Spasm .......................................................KOREAKI MORI, et al (768)
Giant Aneurysm of the Azygos Anterior Cerebral Artery ..................................TATSUITO YAMAGAMI, et al (777)
Mediastinal Hemorrhage as a Complication of Retrograde Brachial Angiography.................................................................MASAHARU ICHIKAWA, et al (783)

Case Reports

Computed Tomography with Cystic Acoustic Schwannomas ................................HIROFUMI NIWA, et al (616)
Thyroid Cancer of a 13 Year-Old-Girl ...................................................................YUZO YAMAMOTO, et al (621)
Extrahepatic Growing Hepatocellular Carcinoma ...............................................TAKAAKI SUDO (732)
Nothnagel Syndrome with Midbrain Hemorrhage .................................................AKIHiko SHINO, et al (789)
A Case of Hereditary Spherocytosis Associated with Cholelithiasis
in a 6-Year-Old Boy .........................................................................................HAJIME NAKAMURA (796)
第55巻総目次

話題

誘発電位について……………………………………………………森竹浩三（1）
人工股関節置換術……………………………………………………奥村秀雄（295）
Zollinger-Ellison症候群の治療と診断の進歩……………………今村正之（379）
冠動脈バイパス手術における自家静脈の適応……………………岡本好史（495）
肝内結石症の成因と治療…………………………………………………小林展章（641）
肝癌に対する外科的治療と今後の課題………………………………田中純次（753）

著者

ビリルピンカルシウム石および黒色石の形成機序………………………日笠顕則他（3）
実験的老化における脳血液量および脳代謝に関する研究…………………小林映（25）
食道静脈瘤止血術のRisk Factorに関する臨床的研究
——経胸の食道切断術とEEAによる経腹の食道切断術の比較・検討———清水暢（46）
ヒト食道癌の制癌剤感受性に関する研究………………………………松本憲夫（58）
噴門括約機能に関する2，3の問題点の検討………………………………長沢英明（70）
噴門括約機能に関するVIPの関与と食道アカラリアの病態生理…………丹黒章（81）

胃癌内ミトコンドリアCK濃度およびその臨床的意義
——とくに消化器癌について———清水良一（96）
慢性肝障害による肝内分泌機能および肝細小管構築の変化に関する研究……矢田貝秀明（106）
残胃の癌の発生，とくに胃汁酸の影響………………………………………美崎幸平（121）
先天性肝胆管拡張症の研究

第1編 先天性肝胆管拡張症の臨床症例の検討
——囊胞型と円柱・筋腫型の差異について———中島康夫他（132）
先天性肝胆管拡張症の研究

第2編 先天性肝胆管拡張症の実験的研究…………………………………中島康夫（144）
腸管大量切除に関する基礎的，臨床的研究——特に人工腸管の効果について——
第1編 腸管大量切除に関する臨床的研究……………………………花房徹児他（171）
腸管大量切除に関する基礎的，臨床的研究——特に人工腸管の効果について——
第2編 腸管大量切除における人工腸管に関する実験的研究………………花房徹児（178）
腸管大量切除に関する基礎的，臨床的研究——特に人工腸管の効果について——
第3編 腸管大量切除後人工腸管を応用した腸管再建術の臨床的研究……………花房徹児（202）
直腸癌に対する温水灌流による温熱化学療法……………………………工藤明敏（212）
骨・軟部悪性腫瘍の進展に関する臨床病理学的研究………………………柴田大法他（224）
実験的肝血管発育におけるThromboxaneA2合成酵素阻害剤の効果………………大杉繁昭（297）
胃癌および大腸癌患者における好酸球増多症，癌組織からの
好酸球増殖因子の放出……………………………………………………澤原達聰（306）
胃温存脾十二指腸癌切除後の胃内外分泌に関する実験的ならびに臨床的研究……金輝次（314）
食道適食症候群の臨床病理学的検討と外科的療法の成績…………………林弘人（334）
胆道系に対する迷走神経切除術の影響とその対策としての
総肝動脈周囲交感神経切除術………………………………………………有吉秀生（346）
肝生検における薬皮肝内マイクロ波凝固法基礎的，臨床的研究……………田伏洋治他（381）
デンビング症候群発生の体液性因子としてのVIP
(Vasoactive Intestinal Polypeptide)

実験的Cysteamine 十二指腸潰瘍における粘膜防御因子からみた

——Transmucosal Potential Difference および薬効組織化学的

ヒスタミン収縮による検討——

クッパ細胞貧血能におけるオプソニン活性測定法の開発に関する研究

実験的肝障害及び肝部分切除患者におけるクッパ細胞貧血能に関する

オプソニ活性の意義

門脈一時遮断の肝に及ぼす影響に関する実験的研究

無麻醉不動化ネコにおける 1-[Bis(4-fluorophenyl)methyl]-4-(2,3,4-trimethoxybenzyl)

piperezine dihydrochloride (KB-2796) の脳血流量に対する作用

隔膜に対する Microwave Coagulation と Streptococcal Preparation (OK-432)

の併用効果——Interleukin 2 産生能に関する基礎的検討——

関節障害に対するストレスの異分泌におよぼす影響

新合成カルシウム拮抗剤 1-[Bis(4-fluorophenyl)methyl]-4-(2,3,4-trimethoxybenzyl)

piperezine dihydrochloride (KB-2796) のラット虚血脳内遊離脂肪酸増加

に対する効果

股関節全置換術における Refobacin 濃度に関する研究

臨床

安否型セメントレス人工関節 (SCW 型人工関節)

閉塞性脳血管障害に対する選択的 Thromboxane A2 合成酵素阻害剤の臨床応用

教室における食道癌治療の現況

Elemental diet を主体とした低残渣食の栄養・直腸疾患への応用

体外循環中の血凝及び赤血球酸化変性についての検討

内視鏡的乳頭切開術の十二指腸乳頭部癌への応用

——鶴見創薬およびレーザー照射の前処置として——

Thromboxane A2 Synthetase Inhibitor (OKY-046) によるクモ膜下出血後の脳血管損傷予防

——多施設間の一般臨床試験——

Iotrolan の使用経験

小児新生児用 IABP の臨床治療

閉塞性黄疸におよぼす腹部血管撮影の影響

K. Küswetter, 他 (393)

森岡秀之 (403)

橋田修平 (415)

船本正明 (442)

金子弘真 (452)

原田光 (519)

有井滋樹 (643)

編田浩介 (662)

金澤聡郎, 他 (682)

金澤聡郎, 他 (755)

Rabenseifner, L. (762)

上羽康夫, 他 (242)

岡本新一郎, 他 (251)

今村正之, 他 (260)

青木洋三, 他 (358)

田畑良宏, 他 (367)

米川泰弘, 他 (473)

石川正恒, 他 (485)

福増善幸, 他 (561)

岡田喜克, 他 (573)
合成抗トロンピン剤 MD-805 による脳血栓症急性期の治療
——多施設間の一般臨床試験——
米川 泰弘，他（711）
ポリウレタン製ウロビロニン固定化抗血栓剂——ケータイの臨床使用経験
松本 雅彦，他（727）
佐木健吾および顔面けいれんに対する狭小血管疾患の分析
森 惠明，他（768）
Azygos Anterior Cerebral Artery に生じた Giant Aneurysm の一例
山上 通人，他（777）
脳血管撮影の合併症としての総隔内血腫
市川 正春，他（783）

症　例

遺伝性球状赤血球症に合併した胆石症の 1 例…
笠原 洋，他（609）
囊胞性腫瘍神経管の 3 例——CT 所見を中心に
新倉 宏文，他（616）
13歳女児の甲状腺癌の 1 例…
山本 雄造，他（621）
肝外性に発育した巨大肝細胞癌の 1 手術例…
須藤 峻章，他（732）
Nothnagel 症候群を呈した中脳出血
植野 順彦，他（789）
6 才で胆石症を合併した遺伝性球状赤血球症の 1 例
中村 章，他（796）

第22回 近畿脳腫瘍研究会
第23回 近畿脳腫瘍研究会
昭和60年度京都大学脳神経外科学教室同門会集談会
第16回 中国・四国神経外科学会
第22回 京大癌研究会
第 1 回 香川県整形外科集談会抄録
第 2 回 香川県整形外科集談会抄録
第 3 回 香川県整形外科集談会抄録
第 4 回 香川県整形外科集談会抄録

637 627 789 732 777 796 732 783 768 585
490 373 741 373 429 282 286 291 637 621 616 597 585
INDEX OF VOLUME 55

Author Index

A

Abe, Mitsuyuki ........................................... 260
Aoki, Yozo .................................................. 358
Arai, Toshiyuki ........................................... 260
Arii, Shigeki ............................................. 643,653
Ariyoshi, Hideo .......................................... 346

B

Ban, Sadahiko ........................................... 473
Ban, Toshihiko .......................................... 561,727

E

Egawa, Hiromu ........................................... 381,689
Egbwurudjakpor ........................................ 768

F

Fujii, Yoshiro ............................................ 597,732
Fujiwara, Yasunori ..................................... 727
Fukuma, Seishi ........................................... 585
Fukumasu, Hiroyuki ..................................... 561
Funamoto Masasaki ...................................... 442

H

Hakusui, Sigeyoshi ....................................... 585
Hamashita, Chiaki .................................... 242
Hanafusa, Tatsuki ........................................ 171,178,202
Handa, Hajime ........................................... 251,473,485,585,711,777
Handa, Jyoji ............................................... 585,616,682,755,789
Handa, Yutaka .......................................... 251
Harada, Hikaru ........................................... 519
Hashida, Shuhei ......................................... 415,430
Hashimoto, Nobuo ...................................... 777
Hatano, Yoshio ........................................... 260
Hayashi, Hiroto .......................................... 334
Henmi, Kumi ............................................... 621
Higashitsuji, Hiroaki ................................... 796
Hikasa, Yorinori ........................................ 3
Hirakawa, Kimiyoshi .................................... 585
Hiraoka, Masahiro ....................................... 260

Hirasawa, Yasusuke ...................................... 393,762
Horikawa, Yoshiharu .................................... 711
Hoshino, Hideaki ........................................ 796

I

Ichikawa, Masaharu ..................................... 783,789
Ikai, Iwao .................................................. 796
Imamura, Masayuki ..................................... 260,379
Inoue, Ryoichi ........................................... 260
Inoue, Yasunori ......................................... 251
Ishikawa, Jun-ichiro .................................... 711
Ishikawa Masatsune ...................................... 485,585
Ito, Motobiko ............................................ 260
Iwatsui, Kenichiro ....................................... 251

J

Johno, Norifumi .......................................... 533

K

Kajiwara, Tatemi ......................................... 306
Kamijo, Yoshinari ....................................... 473,711
Kanazawa, Hidetaka .................................... 597,732
Kanazawa, Toshiro ....................................... 682,755
Kaneko, Hironori ........................................ 452
Kasahara, Yoh ............................................ 597,609
Kato, Hirofumi ........................................... 367
Katsuda, Hitoyasu ....................................... 467,796
Katsumi, Masaharu ....................................... 358,381,689
Kawamura, Masao ........................................ 597,732
Kawarada, Yoshiyumi .................................. 573
Kidooka, Minoru .......................................... 755
Kikuchi, Haruhiko ....................................... 473
Kim, Hwi-Cha ............................................ 314
Kobayashi, Akira ......................................... 25
Kobayashi, Nobuaki ...................................... 3,641
Kobayashi, Yasuhito ..................................... 381,689
Komi, Kiyoshi ............................................ 224
Kondo, Akinori ........................................... 473
Konishi, Yutaka .......................................... 727
Kudo, Akitoshi ........................................... 212
<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kurisaka, Masahiro</td>
<td>768</td>
</tr>
<tr>
<td>Küsswetter, Wolfgang</td>
<td>393</td>
</tr>
<tr>
<td>Kuyama, Takeshi</td>
<td>597, 609, 732</td>
</tr>
<tr>
<td>Kyoshima, Kazumitsu</td>
<td>616</td>
</tr>
<tr>
<td>Leimbeck*, R.</td>
<td>762</td>
</tr>
<tr>
<td>L</td>
<td></td>
</tr>
<tr>
<td>Maruyama, Keisuke</td>
<td>3</td>
</tr>
<tr>
<td>Matsuda, Masayuki</td>
<td>682, 755, 789</td>
</tr>
<tr>
<td>Matsukawa, Yasuhiro</td>
<td>796</td>
</tr>
<tr>
<td>Matsumoto, Masahiko</td>
<td>727</td>
</tr>
<tr>
<td>Matsumoto, Norio</td>
<td>58</td>
</tr>
<tr>
<td>Matsumura, Kenichi</td>
<td>783</td>
</tr>
<tr>
<td>Misaki, Kohei</td>
<td>121</td>
</tr>
<tr>
<td>Mitani, Hiromi</td>
<td>621</td>
</tr>
<tr>
<td>Mizumoto, Ryuji</td>
<td>573</td>
</tr>
<tr>
<td>Mori, Atsumi</td>
<td>367</td>
</tr>
<tr>
<td>Mori, Kazunari</td>
<td>381, 689</td>
</tr>
<tr>
<td>Mori, Koreaki</td>
<td>768</td>
</tr>
<tr>
<td>Morimoto, Masahari</td>
<td>768</td>
</tr>
<tr>
<td>Moroioka, Hideshi</td>
<td>403</td>
</tr>
<tr>
<td>Moritake, Kouzo</td>
<td>1</td>
</tr>
<tr>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Nagai, Yugo</td>
<td>381, 689</td>
</tr>
<tr>
<td>Nagamine, Shinichi</td>
<td>260, 467, 796</td>
</tr>
<tr>
<td>Nagasaki, Yasuhiko</td>
<td>381</td>
</tr>
<tr>
<td>Nagasawa, Hideaki</td>
<td>70</td>
</tr>
<tr>
<td>Nagata, Hirokazu</td>
<td>777</td>
</tr>
<tr>
<td>Nakamura, Hajime</td>
<td>796</td>
</tr>
<tr>
<td>Nakamura, Takashi</td>
<td>585</td>
</tr>
<tr>
<td>Nakamura, Yoshiaki</td>
<td>796</td>
</tr>
<tr>
<td>Nakamura, Yoshio</td>
<td>367</td>
</tr>
<tr>
<td>Naka, Kiichi</td>
<td>609</td>
</tr>
<tr>
<td>Nakao, Satoshi</td>
<td>473</td>
</tr>
<tr>
<td>Nakashima, Yasuo</td>
<td>132, 144</td>
</tr>
<tr>
<td>Nakasu, Yoko</td>
<td>682</td>
</tr>
<tr>
<td>Nin, Kiyoshi</td>
<td>473</td>
</tr>
<tr>
<td>Nioka, Hirofumi</td>
<td>616</td>
</tr>
<tr>
<td>Nishijima, Naoki</td>
<td>242</td>
</tr>
<tr>
<td>Nishimura, Kazunobu</td>
<td>727</td>
</tr>
<tr>
<td>Nishioka, Takasumi</td>
<td>597</td>
</tr>
<tr>
<td>Nishimura, Toshio</td>
<td>585</td>
</tr>
<tr>
<td>Noguchi, Hiroshi</td>
<td>381</td>
</tr>
<tr>
<td>Noguchi, Hiroyuki</td>
<td>689</td>
</tr>
<tr>
<td>Noguchi, Takashi</td>
<td>573</td>
</tr>
<tr>
<td>Nomoto, Shinichi</td>
<td>727</td>
</tr>
<tr>
<td>O</td>
<td></td>
</tr>
<tr>
<td>Oda, Yoshifumi</td>
<td>473, 711</td>
</tr>
<tr>
<td>Odawara, Kenichi</td>
<td>585</td>
</tr>
<tr>
<td>Ogino, Kenji</td>
<td>585</td>
</tr>
<tr>
<td>Ohishi, Ken</td>
<td>260</td>
</tr>
<tr>
<td>Ohtsuka, Shin-ichi</td>
<td>473</td>
</tr>
<tr>
<td>Obsugi, Shigesaki</td>
<td>297</td>
</tr>
<tr>
<td>Ohta, Masataka</td>
<td>358</td>
</tr>
<tr>
<td>Ohta, Tomio</td>
<td>473</td>
</tr>
<tr>
<td>Oka, Sumikazu</td>
<td>700</td>
</tr>
<tr>
<td>Okada, Tatsuya</td>
<td>783</td>
</tr>
<tr>
<td>Okada, Yoshikatsu</td>
<td>573</td>
</tr>
<tr>
<td>Okada, Yoshi</td>
<td>367</td>
</tr>
<tr>
<td>Okamoto, Shinichiro</td>
<td>251, 473, 711</td>
</tr>
<tr>
<td>Okamoto, Yoshifumi</td>
<td>495, 561, 727</td>
</tr>
<tr>
<td>Okanoue, Toyotake</td>
<td>621</td>
</tr>
<tr>
<td>Oku, Hidetaka</td>
<td>597</td>
</tr>
<tr>
<td>Okumura, Hideo</td>
<td>295</td>
</tr>
<tr>
<td>Onoe, Masahiko</td>
<td>367</td>
</tr>
<tr>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Rabenseifner, L.</td>
<td>762</td>
</tr>
<tr>
<td>S</td>
<td></td>
</tr>
<tr>
<td>Saito, Akira</td>
<td>616</td>
</tr>
<tr>
<td>Sakaguchi, Masahiro</td>
<td>358</td>
</tr>
<tr>
<td>Sakamoto, Yukitomo</td>
<td>358</td>
</tr>
<tr>
<td>Satake, Kimio</td>
<td>585</td>
</tr>
<tr>
<td>Sato, Isao</td>
<td>621</td>
</tr>
<tr>
<td>Sato, Tomonobu</td>
<td>3</td>
</tr>
<tr>
<td>Satoh, Manabu</td>
<td>711</td>
</tr>
<tr>
<td>Satomura, Kisaku</td>
<td>132, 171, 202</td>
</tr>
<tr>
<td>Sawada, Hisashi</td>
<td>621</td>
</tr>
<tr>
<td>Sawami, Haruyasu</td>
<td>251</td>
</tr>
<tr>
<td>Sekiya, Tsukasa</td>
<td>3</td>
</tr>
<tr>
<td>Seko, Takashi</td>
<td>251</td>
</tr>
<tr>
<td>Shibata, Taiko</td>
<td>224</td>
</tr>
<tr>
<td>Shiino, Akihiko</td>
<td>789</td>
</tr>
<tr>
<td>名前</td>
<td>ページ番号</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------</td>
</tr>
<tr>
<td>Shimada, Kosuke</td>
<td>358,662</td>
</tr>
<tr>
<td>Shimada, Yutaka</td>
<td>260</td>
</tr>
<tr>
<td>Shimizu, Hiroyuki</td>
<td>467,796</td>
</tr>
<tr>
<td>Shimizu, Ryoichi</td>
<td>96</td>
</tr>
<tr>
<td>Shimizu, Toru</td>
<td>46</td>
</tr>
<tr>
<td>Shimizu, Yoshio</td>
<td>711</td>
</tr>
<tr>
<td>Shimizu, Yukio</td>
<td>251</td>
</tr>
<tr>
<td>Shimoto, Takashi</td>
<td>732</td>
</tr>
<tr>
<td>Shinkai, Masato</td>
<td>796</td>
</tr>
<tr>
<td>Shiraha, Sei</td>
<td>597,732</td>
</tr>
<tr>
<td>Shirotani, Hitoshi</td>
<td>597</td>
</tr>
<tr>
<td>Shishido, Hisashi</td>
<td>473</td>
</tr>
<tr>
<td>Shobu, Ryuji</td>
<td>597,732</td>
</tr>
<tr>
<td>Soloway, D. Roger</td>
<td>3</td>
</tr>
<tr>
<td>Soneda, Junichi</td>
<td>727</td>
</tr>
<tr>
<td>Sonobe, Narumi</td>
<td>609</td>
</tr>
<tr>
<td>Sudo, Takaaki</td>
<td>597,732</td>
</tr>
<tr>
<td>Suwa, Hideyuki</td>
<td>497</td>
</tr>
<tr>
<td>Suyama, Katsuhiko</td>
<td>727</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>名前</th>
<th>ページ番号</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tabata, Ryoko</td>
<td>367</td>
</tr>
<tr>
<td>Tabuse, Katsuyoshi</td>
<td>381,689</td>
</tr>
<tr>
<td>Tabuse, Yoji</td>
<td>381,689</td>
</tr>
<tr>
<td>Takabayashi, Arimichi</td>
<td>3</td>
</tr>
<tr>
<td>Takahashi, Hiroshi</td>
<td>3</td>
</tr>
<tr>
<td>Takahashi, Kentaro</td>
<td>387</td>
</tr>
<tr>
<td>Takei, Nobuo</td>
<td>358</td>
</tr>
<tr>
<td>Takemoto, Masahiko</td>
<td>609</td>
</tr>
<tr>
<td>Taketomo, Shigenobu</td>
<td>585</td>
</tr>
<tr>
<td>Tanaka, Junji</td>
<td>753</td>
</tr>
<tr>
<td>Tangoku, Akira</td>
<td>81</td>
</tr>
<tr>
<td>Tanimura, Hiroshi</td>
<td>3</td>
</tr>
<tr>
<td>Tatsuta, Norikazu</td>
<td>561</td>
</tr>
<tr>
<td>Teramura, Tetsuaki</td>
<td>251</td>
</tr>
<tr>
<td>Tobe, Takayoshi</td>
<td>260</td>
</tr>
<tr>
<td>Tooyama, Mituo</td>
<td>585</td>
</tr>
<tr>
<td>Toyoshima, Masanori</td>
<td>251</td>
</tr>
<tr>
<td>Tsubakimoto, Ryuji</td>
<td>597,732</td>
</tr>
<tr>
<td>Tsuda, Eimei</td>
<td>711</td>
</tr>
<tr>
<td>Tsuda, Harumi</td>
<td>251,711</td>
</tr>
<tr>
<td>Tsujii, Takeo</td>
<td>242</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>名前</th>
<th>ページ番号</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uchida, Yasufumi</td>
<td>768</td>
</tr>
<tr>
<td>Ueba, Yasuo</td>
<td>242</td>
</tr>
<tr>
<td>Ueda, Shozo</td>
<td>609</td>
</tr>
<tr>
<td>Umemura, Hiroya</td>
<td>597,732</td>
</tr>
<tr>
<td>Uemura, Yoshihiko</td>
<td>251</td>
</tr>
<tr>
<td>Ukita, Giichiro</td>
<td>251</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>名前</th>
<th>ページ番号</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washida, Masanobu</td>
<td>621</td>
</tr>
<tr>
<td>Watanabe, Hidetoshi</td>
<td>777</td>
</tr>
<tr>
<td>Watanabe, Kazuo</td>
<td>367</td>
</tr>
<tr>
<td>Watanabe, Kazuyoshi</td>
<td>585,783</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>名前</th>
<th>ページ番号</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yamada, Yukikazu</td>
<td>609</td>
</tr>
<tr>
<td>Yamagami, Tatsuhito</td>
<td>711,777</td>
</tr>
<tr>
<td>Yamagata, Sen</td>
<td>251</td>
</tr>
<tr>
<td>Yamamoto, Sen</td>
<td>621</td>
</tr>
<tr>
<td>Yamamoto, Toyoshito</td>
<td>473</td>
</tr>
<tr>
<td>Yamamoto, Yuzo</td>
<td>621</td>
</tr>
<tr>
<td>Yamamuro, Takao</td>
<td>242</td>
</tr>
<tr>
<td>Yamanaka, Akira</td>
<td>367</td>
</tr>
<tr>
<td>Yamaue, Hiroki</td>
<td>381,689</td>
</tr>
<tr>
<td>Yano, Ichiro</td>
<td>251,711</td>
</tr>
<tr>
<td>Yasuhara, Osamu</td>
<td>585</td>
</tr>
<tr>
<td>Yatagai, Tanoshi</td>
<td>106</td>
</tr>
<tr>
<td>Yoh, Tadakazu</td>
<td>796</td>
</tr>
<tr>
<td>Yoneda, Shun-ichi</td>
<td>473</td>
</tr>
<tr>
<td>Yonekawa, Yasuhiro</td>
<td>251,473,711</td>
</tr>
<tr>
<td>Yoshinaga, Eiichi</td>
<td>545</td>
</tr>
</tbody>
</table>
Subject Index

A
Abdominal Surgery ...........................................-597
Abdominal ultrasonography ............................-796
Achalasia .....................................................-81
Acoustic schwannoma ................................-616
Acoustic tumor ..............................................-616
Adriamycin ..................................................-212
Agarose gel electrophoresis ..............................-96
Aging ..........................................................-367
Anomalous junction of the pancreaticobiliary ductal system ................................-132
Antithrombin .................................................-711
Aneurysm of azygos anterior cerebral artery ...........-777
Anticoagulant therapy ...................................682,755
Anomalus valves ..............................................-777
Anticoagulant concentration and excretion .............-762
Arginine tolerance test ...................................-242
Artificial intestinal valve ..................................-178,202
Assay of eosinophil colony formation ...................-306
Atherosclerosis ...............................................-495
Artificial venous valves ......................................-495
Arturography ..................................................-121
Azygos anterior cerebral artery ...........................-777

B
Bile acids .........................................................-3,121
Bilirubin-calcium stone .....................................-3
Bioassay of opsonic activity ................................-643
Black stone ...................................................-3
Blomycin .........................................................-58
Brain ischemia ...............................................-497
Brain protection ............................................-755
Brainstem auditory evoked potentials ...................-1,497
Brunner’s gland ................................................-533

C
Ca-ion in bile ...................................................-3
Calcified aneurysm ...........................................-777
Calcium entry blocker ......................................-682,755
Cancer and Eosinophilia ..................................-306
Cancer of the alimentary tract ............................-96
Carcinoma of the duodenal papilla ......................-467
Cardiac closing mechanism ................................-70,81
Cardiac output ...............................................-519
Cardiac pacing ...............................................-597
Cardiopulmonary bypass ................................-387
Catecholamine .................................................-497
Catecholamine ................................................-452
Causative factors for intractable jaundice .............-573
Cerebral angiography ......................................-783
Cerebral angiography ......................................-297
Cerebral blood flow ........................................-25
Cerebral blood flow (CBF) ................................-25
Cerebral blood volume (CBV) .............................-25
Cerebral infarction in the acute stage .......................-711
Cerebral ischemia ...........................................25,755
Cerebral metabolic rate for oxygen (CMRO2) ...........-25
Cerebral vasodilation .......................................-682
Cerebral vasospasm .........................................-297,473
Childhood thyroid carcinoma .............................-621
Cholangioscopy ...............................................-641
Cholecystectomy .............................................-609
Cholelithiasis ...............................................609,796
Cholinergic blocking ........................................-58
Clinical cases ................................................-585
Coagulation-fibrinolysis ....................................-452
Collis-Nissen method .........................................-70
Colorectal cancer ..........................................358,442
Complication .....................................................-381,783
Computed tomography ......................................-616
Congenital biliary dilatation ................................-132,144
Congenital heart diseases ................................-561
Contrast medium .............................................-485
Cranial nerve vascular compression syndrome .........-768
Creatine kinase ...............................................-96
D

Daily bile output ........................................... 573
DIC ...................................................................... 452
Direct interruption surgery of esophageal varices
......................................................................... 46
Discriminant analysis of quantification theory type 2
......................................................................... 46
Dissecting aneurysm of aorta ................................ 783
Distal gastrectomy ................................................. 70
Duodenal bulb ....................................................... 314

E

Effectiveness ........................................................ 585
Elemental diet ...................................................... 358
Endoscopic papillotomy ....................................... 467
Endotoxin shock .................................................. 452
Enzyme-labelled antibody method ...................... 442
Eosinophilopoietin ................................................. 306
Epidural morphine administration ....................... 700
Esophageal cancer .............................................. 58, 334
Esophagogastrectomy ........................................... 260
Experimental dumping ........................................ 519
Experimental liver cirrhosis .................................. 403
Extrahepatic growing hepatoma......................... 732

F

Famotidine .......................................................... 545
Fibrotic pancreas ................................................ 106
5-Fu .................................................................... 58
Fluorescence of catecholamin ................................ 346
Follicular carcinoma ............................................. 621
Free fatty acid ..................................................... 755

G

Gallbladder pressure ............................................. 346
Gastric acid output .............................................. 415

H

Gastric mucosal blood flow .................................... 430
Gastric remnant .................................................... 121
Gastric remnant carcinoma ................................... 121
Gastric secretion .................................................. 314, 700
Giant intracranial aneurysm .................................. 777
Glucagon and insulin .......................................... 403
Glycerol ............................................................. 585

Heated thermocouple method ................................. 430
Hemifacial spasm ............................................... 768
Hemolysis .......................................................... 367
Hemorrhagic shock .............................................. 452
Hepaticojunostomy end to side ......................... 641
Hepatic regeneration .......................................... 403
Hepatic vagotomy ................................................ 346
Hepotoma ............................................................ 753
Hereditary spherocytosis...................................... 609, 796
Hexosamine ........................................................ 700
High frequency jet ventilation ................................ 260
Hist angle ............................................................ 70
Histamine ........................................................... 545
Histamine ulcer .................................................. 430
3H-thymidine incorporation ................................ 121
Hydrogen clearance technique .............................. 682
Hydrogen gas clearance technique ..................... 430
Hyperlipidemia ................................................... 495
Hyperoxia ........................................................... 367
Hyperthermia ....................................................... 212

I

IAP ........................................................................ 442
ICG R15 (%) .......................................................... 46
Ileocecal Ileocecal ................................................ 178
Immunotherapy .................................................... 689
Implant .................................................................. 242
INAS ..................................................................... 212
Infant ..................................................................... 796
Injection replica scanning electron microscopic method ........................................ 106
Innominate osteotomy (Salter) .............................. 393
Insulin receptor ..................................................... 403
Interleukin 2 ......................................................... 689
Intimal thickening ................................................. 495
Intra-aortic balloon pumping ..................................561
Intractable jaundice ..........................................573
Intrahepatic stones ...........................................641
Intraluminal pressure of the esophagus and stomach .......70
Intraoperative monitoring .....................................1
Intravenous glucose tolerance test ............................106

J
Jaundice .........................................................609
Jaundice reducing treatment ...................................467
Joint replacement ..............................................242

K
KB-2796 .......................................................682, 755
$K_{\text{inc}}$ ....................................................573
Kupffer cells ...................................................643, 653

L
Laser irradiation ...............................................467
LES ..............................................................81
Ligation of the bile duct ......................................144
Lipid-peroxide ................................................367
Liver biopsy ......................................................381
Liver function ...................................................573
Liver surgery .....................................................753
Local extension ................................................224
Localization of gastrinoma ....................................379
Local perfusion ...............................................212
Long-term administration ....................................585
Low output fistula ............................................358
Lymph node dissection of the upper mediastinum ..........334
Lymphokine ......................................................689

M
Marginal ulcer ..................................................314
Massive bowel resection .....................................171, 178, 202
MD-805 ........................................................711
Mechanical support ............................................561
Mediastinal hemorrhage ......................................783
Metrizamide ......................................................485
Microangiography of pancreas ...............................106
Microscopy ......................................................727
Microvascular decompression ................................768
Microvascular structure of pancreas .........................106
Microwave ......................................................381
Microwave coagulation ......................................689
Microwave tissue coagulator .................................381
Midbrain hemorrhage ........................................789
Mitochondrial creatine kinase .................................96
Monoclonal antibody ..........................................442
MRI .............................................................789
Mucosal blood flow ............................................533
Musculoskeletal sarcoma .....................................224

N
Natural barrier ..................................................224
NK activity ......................................................442
Non-ionic .......................................................485
Nothnagel syndrome ..........................................789

O
Oclusive cerebrovascular disease .............................251
OKY-046 .........................................................473
Opsonic activity ...............................................653
Opsonic index ..................................................643, 653
Oxygen extraction fraction (OEF) ............................25

P
Pancreas ........................................................662
Pancreatic disease .............................................415
Pancreatic exocrine insufficiency ............................430
Pancreatoduodenectomy .....................................314
Pediatric IABP ................................................314
Pedunculated hepatoma .......................................732
Peptic ulcer .....................................................415
Periarterial sympathectomy of the common hepatic artery 346
Phagocytic index .............................................653
Platelet aggregation ..........................................251
Polyurethane ..................................................727
Polyurethane catheter .......................................561
Portal vein ......................................................662
Postoperative care ............................................260
Potential difference ..........................................545
Preoperative colonic preparation ............................358
Proliferation of bile ductui ..................................144
Prostaglandin E1 ..............................................297
Prostaglandin E₁ ..............................................403
Protease inhibitor ...........................................662
Pulmonary complications .................................334
Pyloric ring ......................................................314

R
Radical local control .......................................224
Regional cerebral blood flow ..............................682
Reticuloendothelial host defense .........................463
Reticuloendothelial system ................................653
Retrosternal esophagogastrotomy with with EEA
stapler ...........................................................260
Risk factor ......................................................24

S
Scanning electron .............................................727
Schwannoma .....................................................616
Secretin ..........................................................81,533
Selective arterial secretin injection test .................379
Sensitivity test ..................................................58
Serum gastrin ....................................................415
Short bowel syndrome ......................................171,178
Side-effect .......................................................485,585
Somatosensory evoked potentials .........................1,497
Splenectomy .....................................................609
Streptococcal preparation (OK-432) ......................689
Stress ulcer ......................................................545,700
Subarachnoid hemorrhage ................................297,473
Superior rectus muscle ....................................789
Surgical margin ................................................224
Survival rate ....................................................260
Surgical stress ...............................................700
Surgical treatment ...........................................334
Symphyseal distance .......................................393
Systemic vascular resistance ...............................319

T
The statistical techniques of multivariant analysis

Thromboxane A₂ .............................................334
Thromboxane A₂ synthetase inhibitor .................297,473
Thromboxane synthetase inhibitor ......................473
Thrombus formation .......................................727
Thyroid cancer .................................................621
Thyroid disease in childhood .............................621
Thyroid tumor ................................................621
Total hip replacement .....................................295,762
Transabdominal esophageal transection with EEA

Transient ischemic attack ................................251
Treatment .........................................................381
Trigeminal neuralgia .........................................768
Truncal vagalgia ...............................................346
Tumor marker ...................................................96

U
Unconjugated bilirubin .....................................3
Urokinase .........................................................727

V
Vagotomy ..........................................................545
Vascular anomaly .............................................789
Vasoactive intestinal polypeptide ......................533
VIP .................................................................81
VIP level in the portal vein blood ....................519
VIP level in the tissue extract from the duodenum .519
Visual evoked potentials ....................................1

W
Water stable ......................................................485
Wrist ..............................................................242
Wrist prosthesis ................................................242

Z
Zollinger-Ellison syndrome ..............................379
<table>
<thead>
<tr>
<th>人名</th>
<th>索引</th>
</tr>
</thead>
<tbody>
<tr>
<td>阿部 光幸</td>
<td>260</td>
</tr>
<tr>
<td>青木 洋三</td>
<td>358</td>
</tr>
<tr>
<td>荒井 俊之</td>
<td>260</td>
</tr>
<tr>
<td>有井 淑樹</td>
<td>643,653</td>
</tr>
<tr>
<td>有吉 秀生</td>
<td>346</td>
</tr>
<tr>
<td>伴 貞彦</td>
<td>473</td>
</tr>
<tr>
<td>伴 俊彦</td>
<td>561,727</td>
</tr>
<tr>
<td>江川 博</td>
<td>381,689</td>
</tr>
<tr>
<td>Eghwrudjakpor</td>
<td>768</td>
</tr>
<tr>
<td>廣井 芳郎</td>
<td>597,732</td>
</tr>
<tr>
<td>廣原 康典</td>
<td>727</td>
</tr>
<tr>
<td>福間 諒之</td>
<td>585</td>
</tr>
<tr>
<td>福増 廣幸</td>
<td>561</td>
</tr>
<tr>
<td>船本 正明</td>
<td>442</td>
</tr>
<tr>
<td>白水 重義</td>
<td>585</td>
</tr>
<tr>
<td>浜西 千秋</td>
<td>242</td>
</tr>
<tr>
<td>花房 徹亮</td>
<td>171,178,202</td>
</tr>
<tr>
<td>半田 昇</td>
<td>251,473,485,585,711,777</td>
</tr>
<tr>
<td>半田 譲二</td>
<td>585,616,682,755,789</td>
</tr>
<tr>
<td>半田 寛</td>
<td>251</td>
</tr>
<tr>
<td>原田 光</td>
<td>519</td>
</tr>
<tr>
<td>鳥田 輕平</td>
<td>415,430</td>
</tr>
<tr>
<td>橋本 信夫</td>
<td>777</td>
</tr>
<tr>
<td>相原 義雄</td>
<td>260</td>
</tr>
<tr>
<td>林 弘人</td>
<td>334</td>
</tr>
<tr>
<td>朝見 公雄</td>
<td>621</td>
</tr>
<tr>
<td>東辻 宏明</td>
<td>796</td>
</tr>
<tr>
<td>日笠 賢則</td>
<td>3</td>
</tr>
<tr>
<td>平川 公義</td>
<td>585</td>
</tr>
<tr>
<td>平岡 真寛</td>
<td>260</td>
</tr>
<tr>
<td>平沢 泰介</td>
<td>262,393</td>
</tr>
<tr>
<td>堀川 義治</td>
<td>711</td>
</tr>
<tr>
<td>星野 英明</td>
<td>796</td>
</tr>
<tr>
<td>市川 正春</td>
<td>783,789</td>
</tr>
<tr>
<td>猪飼伊和夫</td>
<td>796</td>
</tr>
<tr>
<td>今村 正之</td>
<td>260,379</td>
</tr>
<tr>
<td>井上 良一</td>
<td>260</td>
</tr>
<tr>
<td>井上 康則</td>
<td>251</td>
</tr>
<tr>
<td>石川純一郎</td>
<td>711</td>
</tr>
<tr>
<td>石川 正恒</td>
<td>485,585</td>
</tr>
<tr>
<td>伊藤 元彦</td>
<td>260</td>
</tr>
<tr>
<td>岩渋賢一郎</td>
<td>251</td>
</tr>
<tr>
<td>城野 憲史</td>
<td>533</td>
</tr>
<tr>
<td>岡原 達観</td>
<td>306</td>
</tr>
<tr>
<td>上条 純成</td>
<td>473,711</td>
</tr>
<tr>
<td>金沢 秀朗</td>
<td>597,732</td>
</tr>
<tr>
<td>金澤 瞳郎</td>
<td>682,755</td>
</tr>
<tr>
<td>金子 弘真</td>
<td>452</td>
</tr>
<tr>
<td>笠原 洋</td>
<td>597,609</td>
</tr>
<tr>
<td>加藤 弘文</td>
<td>367</td>
</tr>
<tr>
<td>勝田 仁康</td>
<td>467,796</td>
</tr>
<tr>
<td>勝見 正治</td>
<td>358,381,689</td>
</tr>
<tr>
<td>河村 正生</td>
<td>597,732</td>
</tr>
<tr>
<td>川原田信之</td>
<td>573</td>
</tr>
<tr>
<td>木戸岡 実</td>
<td>755</td>
</tr>
<tr>
<td>菊池 喜彦</td>
<td>473</td>
</tr>
<tr>
<td>金 輝次</td>
<td>314</td>
</tr>
<tr>
<td>小林 喜</td>
<td>25</td>
</tr>
<tr>
<td>小林 義章</td>
<td>3,641</td>
</tr>
<tr>
<td>小林 純人</td>
<td>381,689</td>
</tr>
<tr>
<td>古谷 激</td>
<td>224</td>
</tr>
<tr>
<td>近藤 明恵</td>
<td>473</td>
</tr>
<tr>
<td>小西 裕</td>
<td>727</td>
</tr>
<tr>
<td>工藤 明敏</td>
<td>212</td>
</tr>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>アドリアマイシン.................................................................. 212</td>
<td></td>
</tr>
<tr>
<td>アンチトロンピン.................................................................... 711</td>
<td></td>
</tr>
<tr>
<td>安定性.................................................................................. 485</td>
<td></td>
</tr>
<tr>
<td>アルギニン負荷試験................................................................ 415</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>ビリジンカルシウム石................................................................ 3</td>
</tr>
<tr>
<td>微小血管減圧術........................................................................ 768</td>
</tr>
<tr>
<td>プレオマインシオン.................................................................. -58</td>
</tr>
<tr>
<td>ブルンナー腺........................................................................... 533</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 角.................................................................................... 393</td>
</tr>
<tr>
<td>脊骨間距離............................................................................. 393</td>
</tr>
<tr>
<td>治療..................................................................................... 381</td>
</tr>
<tr>
<td>膵管大量切除........................................................................ 171, 178, 202</td>
</tr>
<tr>
<td>長期投与................................................................................ 585</td>
</tr>
<tr>
<td>聴性脳幹反応.......................................................................... 1,497</td>
</tr>
<tr>
<td>聴神経聴覚.......................................................................... 616</td>
</tr>
<tr>
<td>聴神経障害.......................................................................... 616</td>
</tr>
<tr>
<td>Collis-Nissens法................................................................... 70</td>
</tr>
<tr>
<td>³HCr-エンドトキシン............................................................. 643</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>大腸癌.................................................................................. 442</td>
</tr>
<tr>
<td>大腸癌前病変....................................................................... 358</td>
</tr>
<tr>
<td>DIC....................................................................................... 452</td>
</tr>
<tr>
<td>動脈硬化.............................................................................. 495</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEA 腹腔的食道離断術.......................................................... 46</td>
</tr>
<tr>
<td>円柱・線維型拡張................................................................... 132</td>
</tr>
<tr>
<td>エンドトキシンショック.......................................................... 452</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>ファイブ・エフユ................................................................... 58</td>
</tr>
<tr>
<td>ファモチジン......................................................................... 545</td>
</tr>
<tr>
<td>腹部超音波診断...................................................................... 796</td>
</tr>
<tr>
<td>副作用.................................................................................... 485, 585</td>
</tr>
<tr>
<td>噴門括約機構......................................................................... 70, 81</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>頭面冷暈.............................................................................. 768</td>
</tr>
<tr>
<td>腫と好酸球増多症.................................................................... 306</td>
</tr>
<tr>
<td>合併症................................................................................... 381, 783</td>
</tr>
<tr>
<td>ガストリノーマの局在診断...................................................... 379</td>
</tr>
<tr>
<td>外科治療............................................................................... 334</td>
</tr>
<tr>
<td>減食処置............................................................................... 467</td>
</tr>
<tr>
<td>グリセロール......................................................................... 585</td>
</tr>
<tr>
<td>グルコースインスリン................................................................ 403</td>
</tr>
<tr>
<td>結合線溶系............................................................................ 452</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>肺合併症............................................................................... 334</td>
</tr>
<tr>
<td>末梢性前肢血管障害................................................................ 251</td>
</tr>
<tr>
<td>ヘキサジンシオン................................................................... 700</td>
</tr>
<tr>
<td>非抱合型ビリジン.................................................................... 3</td>
</tr>
<tr>
<td>非イオン性.............................................................................. 485</td>
</tr>
<tr>
<td>货食率................................................................................... 653</td>
</tr>
<tr>
<td>His 角.................................................................................. 70</td>
</tr>
<tr>
<td>ヒスタミン............................................................................. 545</td>
</tr>
<tr>
<td>ヒスタミン濁廃...................................................................... 430</td>
</tr>
<tr>
<td>³H-thymidine のとり込み......................................................... 121</td>
</tr>
<tr>
<td>脾摘出................................................................................... 609</td>
</tr>
<tr>
<td>吻合部潰瘍........................................................................... 314</td>
</tr>
<tr>
<td>補助循環.............................................................................. 561</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>胃分泌............................................................................... 700</td>
</tr>
<tr>
<td>ICG 15分値.......................................................................... 46</td>
</tr>
<tr>
<td>ICG 血管消失率..................................................................... 573</td>
</tr>
<tr>
<td>一日胆汁排泄量.................................................................... 573</td>
</tr>
<tr>
<td>遺伝性球状赤血球症................................................................ 609, 796</td>
</tr>
<tr>
<td>胃液分泌.............................................................................. 314</td>
</tr>
<tr>
<td>鋼型走査電子顕微鏡法.......................................................... 106</td>
</tr>
<tr>
<td>一部性脳虚血発作................................................................... 251</td>
</tr>
<tr>
<td>胃粘膜血流.......................................................................... 430</td>
</tr>
<tr>
<td>インスリン受容体................................................................... 403</td>
</tr>
<tr>
<td>インターロイキン 2................................................................ 689</td>
</tr>
<tr>
<td>一般肝機能.......................................................................... 573</td>
</tr>
<tr>
<td>胃酸分泌.............................................................................. 415</td>
</tr>
<tr>
<td>胃食道内圧.......................................................................... 70</td>
</tr>
</tbody>
</table>
P

PD ......................................................... 545
ペーシング............................................. 597
ポリウレタン........................................... 727
ポリウレタンバルーンカテーテル.................. 561
プロスタグランディン E1................................. 403
プロスタサイクリン...................................... 297

R

レーザー治療................................................. 467
リンホカイ因............................................ 689
臨床例.................................................. 585
漉胞腺癌............................................... 621

S

細胞内皮系による生体防御.............................. 643
細胞内皮系.............................................. 653
三叉神経痛.............................................. 768
酵素抗体法............................................... 442
酸素摂取率............................................... 25
酸素消費量............................................... 25
成分栄養................................................ 358
制癌剤感受性試験...................................... 212
生体内障壁.............................................. 224
生存率.................................................. 260
石灰化動脈硬化........................................ 777
セクレチン.............................................. 81,533
遷延性黄疸.............................................. 573
線維化障................................................ 106
選択的動脈内セクレチン注入試験.................. 379
先天性心疾患............................................ 561
先天性胆道拡張症........................................ 132,144
セラミック............................................... 295
セラミックス........................................... 242
切除面.................................................. 224
視覚誘発電位............................................ 1
神経鞘腫................................................ 616
心拍出量................................................ 519
新生児用バルーンパンピング........................ 561
ステアミン十二指腸潰瘍.............................. 533
シスタラチン............................................. 58
消化管癌................................................. 358
消化器癌............................................... 96

N

内膜肥厚.................................................. 495
中腸出血................................................ 789
内視鏡的乳頭切開術.................................... 467
ネコ..................................................... 497
粘膜血流量.............................................. 533
NK活性................................................ 442
脳保護作用............................................. 755
囊胞性神経鞘腫........................................ 616
脳循環................................................ 297
脳血管拡張薬........................................... 682
脳血管拡張.............................................. 297,473
脳血管撮影.............................................. 783
脳血栓................................................ 711
脳血栓症急性期........................................ 711
脳血流量................................................ 25
脳血流量................................................ 25
脳虚血............................................... 25,497,755
脳局所血流量.......................................... 682
脳神経血管圧迫症候群................................. 768
囊腫型拡張............................................. 132
囊腫十二指腸吻合.................................... 144
Nothnagel 症候群...................................... 789

O

黄疸...................................................... 609
黄疸遷延因子.......................................... 573
OKY-046................................................. 473
OK-432................................................ 689
温熱療法................................................ 212
オプシニーオ活性...................................... 653
オプシニーニンの生物学的測定法.................. 643
オプシニーニン指数.................................... 643,653
オートラジオグラフィー................................. 121
消化性潰瘍........................................................................ 415
症候群.............................................................................. 379
食道アカラシア............................................................. 81
食道癌........................................................................... 58,334
食道静脈瘤直接手術....................................................... 46
食道切除術................................................................. 260
小児............................................................................... 796
小児甲状腺癌................................................................. 621
小児甲状腺疾患............................................................... 621
小児用ペルプンパンピング.............................................. 561
手術ストレス................................................................ 700
手術時............................................................................. 242
出血性ショック............................................................... 452
脳循環マーカー.................................................................. 96
総肝動脈周囲交感神経切離術........................................... 346
挿入物........................................................................... 242
走査電子顯微鏡............................................................... 727
総胆管結紮.................................................................... 144
脅....................................................................................... 662
脅部小管構築................................................................. 106
脅部小血管造影.............................................................. 106
脅外分泌障害................................................................. 430
脅十二指腸切除術......................................................... 314
脅癌............................................................................... 415
水素ガスクリアランス法................................................... 430
水素クリアランス法......................................................... 682
脅胆管合流異常症........................................................... 132
数量化理論Ⅱ類............................................................... 46
ストレス潰瘍.................................................................. 545,700

T

多変量解析................................................................. 334
体外循環................................................................. 367

体血管抵抗................................................................. 519
体性感覚誘發電位......................................................... 1,497
胆道内視鏡................................................................. 641
胆汁中 Ca イオン................................................................ 3
胆汁酸.......................................................................... 3,121
胆管囊腫....................................................................... 132
胆管増生.................................................................... 144
胆のう内圧................................................................. 346
胆囊摘出................................................................. 609
蛋白分解酵素阻害剤..................................................... 662
胆石症.......................................................................... 609,796
Thrombomodulin A1 合成酵素阻害剤............................ 251
トロンボキサン A2.......................................................... 297,473
トロンボキサン合成酵素阻害剤........................................ 473

U

ウロキナーゼ.................................................................... 727

V

VIP................................................................................ 81,533

Y

溶血............................................................................... 367
有茎性肝細胞癌............................................................ 732
有効性.......................................................................... 585
術門輸....................................................................... 314
遊離脂肪酸................................................................. 755

Z

残胃........................................................................... 121
残胃の癌................................................................. 121
前大脳動脈................................................................. 777
造影剤................................................................. 485
日本外科宝函編集・投稿規定（昭. 60. 1. 改正）

○本誌は毎年1月、3月、5月、7月、9月および11月の各月1日に発行する。状況により臨時増刊を発行する。なお、原稿の記入方法についての詳細は、各期別誌の掲載の通りとする。

○予約購読料は昭和56年より年額5,000円（送料を含む）とし、分冊は1冊900円とする。予約購読希望者は1年間購読料を支払う日本外科宝函編集部に申し込まれる。

○掲載論文の著者および共著者は本誌予約購読者でなければならない。

○投稿原稿は編集者において必要と認める場合、加筆・訂正することがある。

○和文原稿は400字詰原稿用紙に書きとし、新サインの貼付を使うこと。なお、ワードプロセッサ使用の場合は、1行20字×20行=400字をもって1枚とし、一行おきにプリントすること。

○欧文原稿は、タイプライターあるいは、欧文専用のワードプロセッサで作成する。

○原稿の長さはおよそ下記の限度とし、和文原稿には、上記の限度と同様に、400字詰原稿用紙に書きとし、新サインを貼付すること。なおこの場合に和文原稿と同様に、400字詰原稿用紙に書きとし、新サインを貼付すること。

○原稿の用語中、欧文固有名詞の頭文字は大文字を、数字は原則としてアルファベット数字を使用し、日本語化した四国名は片仮名で書くこと。欧文中の人名にはアンダーラインを引くこと（文脈を除く）。

○数量の単位は下記の例による。

例：m, cm, mm, ml, kg, g, °C, μ, %, pH など。

○Key words: 日本語、英語のそれぞれ5語を選定し、表題の下に記入すること。また欧文で文脈読者を宛名（Present address）を記載することがある。著者の所属は正式称号に従われたい。

○掲載、図などは白表紙または青色四眼紙に素で活書し、直ちに凸版製作可能の状態で送付されたい（学会発表などのスライド原稿は、大字を用いることが多いため不適当である）。その補入位置は原稿に記入のこと。

○表、写真などは、すべて変則に記入もしくは添付し、挿入箇所を原稿に記入のこと。

○引用文献は一括して原稿末尾に記載する。原則としてIndex Medicusに掲載アルファベット順に並べ、日本語文献も筆頭者のローマ文字のアルファベット順に並べること。著者名は3名までとし、その後はその他の場合省略する。

例。


2) 三宅 亜: 副腎皮質ホルモンの測定と臨床。最新医学 6: 769-782, 昭26。


4) 原 一夫: 脳腫瘍・東京, 医学書院, 昭34。


○掲載料は1頁6,000円、表、写真、アート紙の使用、コロタイプ、カラーイラストなどは著者の実費負担とする。

○別冊希望の場合は、投稿時に希望冊数を申し込まれたが、別冊1冊20円を申し上げる。

○原稿、図版は必ずコピーを一部添付し送付される。

○原稿は完全なものとして御送付願い、著者校正の際における加筆訂正は認めない。

○原稿は書留郵便で下記編集室宛に送付されたい。原稿が当編集室へ到着した日付を受付日とする。

○なお原稿として原稿は返却しない。

〒606 京都市左京区京築造川原町54
京都大学医学部整形外科教室内
日本外科宝函編集宛
☎（075）715-3659

発行所
日本外科宝函編集室
代 表 者 伴 敏 彦

（発行所 京都 4-3691）
消炎・出血抑制・膿液分解作用を有するLysozyme製剤！

レフトーゼ 錠（10mg・30mg・50mg） 顆粒（10倍）

■適応症
・慢性副鼻腔炎
・呼吸器疾患に伴う喀痰喀出困難
・小手術後の術中術後出血（歯科、泌尿器科領域）
・歯槽膿漏症（炎症型）の緩解

リソチームとして初めての シロップ剤 小児用・消炎酵素剤

レフトーゼ シロップ

■使用上の注意 本剤ご使用の際は添付文書をよくご覧下さい。

日本新薬KK
京都市南区西大路八条
消炎・出血抑制・膿液分解作用を有するLysozyme製剤！

レフトーゼ錠（10mg・30mg・50mg）
顆粒（10倍）

■適応症
- 慢性副鼻腔炎
- 呼吸器疾患に伴う喀痰喀出困難
- 小手術時の術中術後出血（歯科、泌尿器科領域）
- 歯槽膿腫症（炎症型）の緩解

リゾチームとして初めてのシロップ剤 小児用・消炎酵素剤

レフトーゼ シロップ

■使用上の注意 本剤ご使用の際は添付文書をよくご覧下さい。

日本新薬KK
京都市南区西大路八条
消炎・出血抑制・膿液分解作用を有するLysozyme製剤！

レフトーゼ錠（10mg・30mg・50mg）
顆粒（10倍）

■適応症
・慢性副鼻腔炎
・呼吸器疾患に伴う咯痰咯出困難
・小手術時の術中術後出血（歯科、泌尿器科領域）
・歯槽膿漏症（炎症型）の緩解

レフトーゼ シロップ

小児用・消炎酵素剤

使用上の注意 本剤ご使用の際は添付文書をよくご覧下さい。

日本新薬KK
京都市南区西大路八条
消炎・出血抑制・膿液分解作用を有するLysozyme製剤！

レフトーゼ 錠（10mg・30mg・50mg）
顆粒（10倍）

■適応症
慢性副鼻腔炎
呼吸器疾患に伴う痰溜出困難
小手術時の術中術後出血（歯科、泌尿器科領域）
歯槽膿漏症（炎症型）の緩解

リゾチームとして初めてのシロップ剤 小児用・消炎酵素剤

日本新薬KK
京都市南区西大路八条
消炎・出血抑制・膿液分解作用を有するLysozyme製剤！

レフトーゼ錠（10mg・30mg・50mg）
顆粒（10倍）

■適応症
- 慢性副鼻腔炎
- 呼吸器疾患に伴う喀痰咳出困難
- 小手術時の術中術後出血（歯科・泌尿器科領域）
- 侖槽膿漏症（炎症型）の緩解

リゾチームとして初めての
シロップ剤 小児用・消炎酵素剤

レフトーゼシロップ

■使用上の注意 本剤を使用の際は添付文書をよくご覧下さい。

日本新薬KK

京都市南区西大路八条
消炎・出血抑制・膿液分解作用を有するLysozyme製剤！

レフトーゼ錠（10mg・30mg・50mg）
顆粒（10倍）

■適応症
・慢性副鼻腔炎
・呼吸器疾患に伴う喀痰喀出困難
・小手術時の術中術後出血（歯科、泌尿器科領域）
・歯槽膿漏症（炎症型）の緩解

リゾチームとして初めてのシロップ剤 小児用・消炎鎮痛剤
レフトーゼ シロップ

■使用上の注意 本剤ご使用の際は添付文書をよくご覧下さい。

日本新美KK
京都市南区西大路八条
日本外科宝函編集室・投稿規定（昭.60.1.改正）

○本誌は毎年1月、3月、5月、7月、9月および11月の各月1日に発行する。状況により臨時増刊を発行する。
○予約購読料は昭和56年度より年額5,000円（料金を含む）とし、分冊は1冊900円とする。予約購読希望者は1年前購読料を徴收日本外科宝函編集部に申し込まれたい。
○掲載論文の著者および共著者は本誌予約購読者でなければならない。
○投稿原稿は編集者において必要と認める場合、加筆・訂正することがある。
○和文原稿は400字原稿用紙に横書きし、新たにづかいを用いること。なお、ワードプロセッサー使用の場合は、1行20字×20行=400字をもって1枚とし、一府三県にプリントすること。
○和文原稿は、タイプライターあるいは、欧文原稿のワードプロセッサーで作成する。
○原稿の長さはおよそ下記の限度とし、和文原稿には欧文表題および欧文抄録、欧文原稿には和文表題および和文抄録を添付されたい。なお、本に和文原稿とも100words以上の欧文抄録を添付されたい。原著論文、総説、臨床、400字原稿40枚以内（図表含）症例報告、研究速報、400字原稿15枚以内（図表含）。
○原稿の用語、欧文固有名詞の頭文字は大文字を、数字は原則としてアラビア数字を使用し、日本語化した外国語は片かたで書くこと。欧文中の人名にはアンダーラインを引くこと（文献を除く）。
○文章の単位は下記の例による。
例：m, cm, mm, ml, kg, g, °C, μ, %, pH など。
○Key words 日本語、英語のそれぞれ5語を確定し、表題の下に記入すること。また欧文で文献請求宛名（Present address）を記入されたい。著者の所属は正式名称に従いたい。
○掲載、図などの白紙または青色用紙に黒で書き、直ちに凸版製作可能の状態で付送されたい（学会発表などのスライド原稿は、太字を用いることが多いため不適当である）。その補充位置は原稿に記入のこと。
○表、写真などは、すべて別紙に記入もしくは添付し、補充箇所を原稿に記入のこと。
○引用文献は一括して原稿末尾に記載する。原則としてはMedicusに準じてアルファベット順に並べ、日本語文献も筆頭者のローマ字名のアルファベット順に並べられ、著者名は3名までとし、その後はその他として省略する。
例。
2) 三宅 優: 副腎皮質ホルモンの測定と臨床. 最新医学 6: 769-782, 昭26。
4) 所 安夫: 腦腫瘍. 東京, 医学書院, 昭34。
○掲載料は1冊6,000円、図表、写真、アート紙の使用、コロタイプ、カラー図版などは著者の実費負担をすると。
○別刷希望の場合は、投稿とともに希望部数を申し込まないと、別刷は1冊20円を申し込むよう。
○原稿、図表は必ずコピーを一部添付し送付されたたい。
○原稿は完全なものとして臨時送付願いたい。著者校正の際における加筆訂正は認めない。
○原稿は書留郵便で下記編集室宛に送付されたい。原稿が当編集室へ到着した日付を受付日とする。
○なお原則として原稿は返却しない。
〒606 京都市左京区聖護院町54
京都大学医学部外科整形外科教室
日本外科宝函編集室
電（075）751-3659

昭和61年10月20日印刷
昭和61年11月1日発行

発行所

日本外科宝函編集室

代表者 伴 敏彦

（振替口座 京都 4-3691）
The Mechanism of Formation of Bilirubin Calcium Stones and Black Stones

YORINORI HIKASA, ARIMI8I TAKABAYASHI, TOMONOBU SATO
Tazuke Kohukai Medical Institute, Kitano Hospital (Director: YORINORI HIKASA)
HIROSHI TACHASHI, TSUKASA SEKIYA, KEISUKE MARUYAMA, NOBUAKI KOBAYASHI, HIROSHI TANIMURA
Second Department of Surgery, Faculty of Medicine, Kyoto University (Director: Prof. Dr. KAZUE OZAWA)
ROGER D. SOLOWAY
Hospital of the University of Pennsylvania, Philadelphia, USA


For our basic analysis of bile components we used high performance liquid chromatography which promptly and correctly separates and quantitatively analyses bilirubin without using thin layer chromatography with diazo-reaction. This is important because bilirubin is especially unstable in light and oxygen. We also found a method to determine the concentration of calcium ions in bile using a calcium ion analyzer with an ion selective electrode. Our purpose in undertaking this research was to search for a better explanation for the formation of bilirubin calcium stones and black stones, as the conventional explanation failed to fully satisfy us.

A Clinical Study of Risk Factors Associated with Direct Interruption Surgery for Esophageal Varices; A Comparative Study between Transluminal and Transabdominal Transection with Hand-suture and Transabdominal Transection with EEA Stapler

TORU SHIMIZU
The Second Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. Dr. KOICHI ISHIGAMI)


From the clinical investigation on the risk factor of direct interruption surgery for esophageal varices with the method of multivariate discriminant analysis, ICG R10(%) (emergent procedure and variance of operation were more closely related to the operative mortality than other preoperative variables. As compared with transluminal and transabdominal esophageal transection with hand-suture, transabdominal esophageal transection with EEA stapler is more suitable operation for patients with poorer hepatic reserve.

A Study of Sensitivity of Esophageal Cancer to Anticancer Agents

NORIO MATSUMOTO
The Second Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. Dr. KOICHI ISHIGAMI)


The sensitivities of 25 cases of esophageal cancer to anticancer agents were investigated by INAS (Inhibition of Nucleic Acid Synthesis) method. Ten cases out of 25 (40%) were sensitive to Bleomycin (RLM), 9 cases out of 25 (36%) to Cisplatin (CDDP), 9 cases out of 16 (56.8%) to 5-Fu. The sensitivities of the metastatic lymph nodes and peripheral portions of tumor to CDDP were higher. Original tumors of human esophageal cancer were transplanted into nude mice and 5 cases out of 10 (50%) were successfully transplanted primarily.

The sensitivities of corresponding xenografts in nude mice to BLM and CDDP had a tendency to be higher than those of the original tumors of esophageal cancer.
Studies on Some Problems Regarding the Cardiac Closing Mechanism

HIDEAKI NAGASAWA

The Second Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. Dr. KOICHI ISHIGAMI)


The alteration of the cardiac closing mechanism after distal gastrectomy in human beings and dogs, and the reconstruction of the cardiac closing mechanism by the Collis-Nissen method in dogs were investigated with open-tip method. In the Billroth-I gastrectomy cases, His angle increased and resting intraluminal pressure at the esophago gastric junction decreased, postoperatively. However, in the Billroth-II gastrectomy cases, no remarkable changes were observed in His angle and resting pressure, postoperatively. The Collis-Nissen operation is useful in reconstructing the cardiac closing mechanism and elongating the esophagus in sliding esophageal bialar hernia cases with short esophagus.

Clinical Evaluation of Mitochondrial Creatine Kinase Level in Human Tumors

RYOICHI SHIMIZU

The 2nd Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. Dr. KOICHI ISHIGAMI)


Recently mitochondrial creatine kinase (CK) has been detected in patients with various malignant tumors, especially those with cancers of the gastrointestinal (GI) tract. In order to clarify its distribution in the GI tract, the author measured the mitochondrial CK activity in normal and malignant tissues of the alimentary tract by agarose gel electrophoresis using an antibody against the M monomer. The result of this study showed that mitochondrial CK was the predominant isoenzyme in malignant tissue, especially in gastric and colorectal cancers. It seems that mitochondrial CK is the tumor associated marker of the GI tract.

Effect of VIP on the Cardiac Closing Mechanism and Pathophysiology of Achalasia of the Esophagus

AKIRA TANGOKU

The Second Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. Dr. KOICHI ISHIGAMI)


The effect of vasoactive intestinal polypeptide on the lower esophageal sphincter was investigated by the manometric study. VIP reduced resting and tetragastrin-stimulated lower esophageal sphincter pressure with significantly greater potency than secretin. Phenol-injected achalasia dogs showed hypersensitive reduction of LESP in comparison with normal dogs. Patients with achalasia showed hypersensitive response to secretin. By the immunohistochemical studies, normal dogs and control patients had VIP-immunoreactive nerve cell bodies and fibers in myenteric plexus and muscle layer of LES. Achalasia dogs and achalasia patients had fewer VIP-reactive nerves.

Studies on Changes in Endocrine Function and Microvascular Structure of Experimental Chronic Pancreatic Injuries

TANOSHI YATAGAI

Department of Surgery, Murakami Memorial Hospital, Asahi University


Effect of the progression of fibrosis on microvascular structure and endocrine function is studied by the methods of microangiography, scanning electron microscope and intravenous glucose tolerance test in canine pancreas.

In fibrotic pancreas, the number of efferent vessels in the transitional zone of the islet of Langerhans to exocrine tissue are markedly diminished, but the fundamental microvascular structure of the islet of langerhans is well maintained even thirteen months after pancreatic duct ligation.

The endocrine function is disturbed in most cases of severely fibrotic pancreas.

Studies on Changes in Endocrine Function and Microvascular Structure of Experimental Chronic Pancreatic Injuries
Cancer Development in the Gastric Remnant, Especially the Effect of Bile Acids
KOHEI MISAKI
The Second Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. KOICHI ISHIGAMI)

The gastric remnant carcinoma develops predominantly after Billroth II resection and in the stump or near the anastomotic site.

 Autoradiographic findings showed that the expansion of the proliferative zone was observed in the gastric remnant, suggesting that the gastric remnant is a disorder of proliferation which may predispose to malignant transformation.

In Wistar rats, 3H-thymidine incorporation was significantly greater in the pyloric area than in the fundic area. Peroral administration of CA, DCA or MNNG didn’t increase 3H-thymidine incorporation in the fundic area but increased in the pyloric area. The addition of CA or DCA to MNNG didn’t increase 3H-thymidine incorporation.

An Experimental Study on Congenital Biliary Dilatation
YASUO NAKASHIMA
The 2nd Department of Surgery, Faculty of Medicine, Kyoto University (Director: prof. Dr. KAZUE OZAWA)

In order to elucidate the effect of the choledochal stenosis on congenital biliary dilatation, 123 rats were used and comparisons were made among 5 Groups (Group I: control, Group II: single ligation of the choledochus, Group III: short-term observation after ligation and dissection of the choledochus, Group IV: long-term observation after ligation and dissection of the choledochus, Group V: cyst-duodenostomy).

Cystic dilatation of the choledochus was not induced by single ligation. Cystic dilatation localized in the extrahepatic bile duct could be induced in rats by double ligation and dissection of the choledochus.

Cystic dilatation was more pronounced in rats weighing less than 100 g than in those weighing 100 g or more.

A Clinical Study on Congenital Biliary Dilatation Comparison of Cystic Type vs Cylindrical-Fusiform Type
YASUO NAKASHIMA and KISAKU SATOMURA
The 2nd Department of Surgery, Faculty of Medicine, Kyoto University (Director: Prof. Dr. KAZUE OZAWA)

Fourty-five cases (less than 15 years-old) of congenital biliary dilatation were divided into two types, namely cystic type and cylindrical-fusiform type, and comparison was made on clinical features as well as laboratory findings between two types.

Cystic type tended to occur in younger ages than cylindrical-fusiform type.

Chief complaints of the patients with cystic type were abdominal mass, jaundice and abdominal pain. In the cylindrical-fusiform type, those were abdominal pain, vomiting and fever.

Serum amylase values increased in 8 patients with cylindrical-fusiform type but no cases increased in the cystic type.

A Clinical Study on Massive Bowel Resection
TETSUJI HANAFUSA and KISAKU SATOMURA
The 2nd Department of Surgery, Faculty of Medicine, Kyoto University (Director: Prof. Dr. KAZUE OZAWA)

A clinical study was carried out on 10 cases of massive bowel resection including 6 cases of adults and 4 cases of children. In 9 of 10 cases, ileocolon were eliminated.

There was counter relation between body weight gain and defecational control. Defecational control, that is, prevention of diarrhea caused body weight loss in some short bowel cases.

In the management of short bowel syndrome, parenteral nutrition is effective, however, the development of a measure to maintain good nutrition and to control defecation is required.
Effects of an Artificial Intestinal Valve on Massive Bowel Resection

TETSUJI HANAFUSA

The 2nd Department of Surgery, Faculty of Medicine, Kyoto University (Director: Prof. Dr. KAZUE OZAWA)


An experimental study was carried out in mongrel puppies to clarify the beneficial effect of an artificial intestinal valve on massive bowel resection.

The following results were obtained:

1) The 80% resection group showed good postoperative intestinal adaptation, while the 80% resection plus ileocecal valve resection group showed poor adaptation.
2) Significant differences were found in weight, mortality, stool appearance and blood chemistry between the artificial intestinal valve fitting group and the ileocecal resection group.
3) The artificial valve as well as the ileocecal valve played an important role after massive bowel resection.

A Clinical Study on an Artificial Intestinal Valve

TETSUJI HANAFUSA and KISAKU SATOMURA

The 2nd Department of Surgery, Faculty of Medicine, Kyoto University (Director: Prof. Dr. KAZUE OZAWA)


Considering the result of an experimental study on the short bowel syndrome and on an artificial intestinal valve constructed by telescoping anastomosis, a clinical study was carried out on 14 cases in order to elucidate the effect of the valve.

The following results were observed:

1) The artificial valve was found to be functional by 1–11 years follow-up studies.
2) By Ba enema examination, the artificial valve was found to be not a cicatricial stenosis but to have a functional valvular mechanism.
3) The effect of the valve was recognized as improvement of fecal condition and defaecational control.

Studies on Hyperthermic Chemotherapy for Cancer of the Rectum: Especially the Intraluminal Administration with Perfusion of Adriamycin Containing Warmed Saline Solution

AKITOSHI KUDO

The Second Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. Dr. KOICHI ISHIGAMI)


The author made a fundamental investigation on the hyperthermic chemotherapy for rectal cancer in dogs. Hyperthermia was attained by perfusion of warmed saline solution using two way catheter and adriamycin (ADM) was administered intraluminally at the dose of 10, 50 and 100 mg/1. ADM levels in colonic mucosa were increased in hyperthermic (43°C) group. The localization of ADM in the colon was demonstrated fluorescence-microscopically. Using INAS method, the effect of hyperthermia on the sensitivity of tumor cells to ADM was verified. Two clinical cases with rectal cancer had undergone this hyperthermic chemotherapy.

A Clinicopathological Study on Local Extension in Musculoskeletal Sarcoma

TAIMO SHIBATA

Department of Orthopedic Surgery, Ehime University School of Medicine

KIYOSHI KOMI

Department of Orthopedics, Kita-uwa Prefectural Hospital


To clarify the biological barrier effect on the local extension for musculoskeletal sarcomas, a clinicopathological study was carried out retrospectively and prospectively in 21 patients (24 operations) with skeletal sarcomas and also 11 patients (13 operations) with soft tissue sarcomas.

The results of these surgical procedures showed that the radical local control may be achieved by a carefully planned procedure within the limits of a wide margin, considering the minor barrier that may exist in a compartment.

The histological findings suggest that the epimysium, epiphyseal cartilage, aponeurosis, muscle fiber and the synovial layer act as a minor barrier against the local extension of sarcomas.

京都大学医学部外科学教室 第2講座 花房敏克

京都大学医学部外科学教室第2講座 工藤敏敏
Stable Cementless Wrist Prosthesis (SCW prosthesis)
YASUO UEBA, NAOKI NISHIJIMA, TAKEO TSUJI, CHIAMI HAMANISHI and TAKAO YAMAMURO
The Orthopedic Department, Faculty of Medicine, Kyoto University

A new wrist prosthesis (SCW prosthesis) is an unconstrained wrist prosthesis which consists of two components. They are made of alumina ceramics and high density polyethylene. It is designed to provide good range of motion, especially full range of extension. A wide contact area of the articulation gives good stability. As the stem and pegs of the prosthesis are made of ceramics, they incorporate well to the bone without cementing. This prosthesis was clinically used in two wrists of two patients. Both patients are postoperatively satisfied with the stable painless wrists.

Principles of Treatment for Cancer of the Esophagus in Our Department
MASAYUKI IMAMURA,1) KEN OHISHI,2) YUTAKA SHIMADA,1) TAKAYOSHI TOBE,1) TOSHIYUKI ARAI,3) YOSHIHITO HATANO,3) MASAHIRO HIRAOKA,2) MITSUYUKI ABE,2) RYOICHI INOUE,4) MOTOHIKO ITO,5) SHINICHI NAGAMINE6)
The 1st. Department of Surgery,1) Anesthesiology,2) Radiology,3) Geriatric Medicine,4) Institute for Chest Disease,5) Kyoto University, Wakayama Red Cross Hospital.

Of 108 patients with carcinoma of the esophagus seen at our Department between August 1975 and 1985, 76 (70.4%) underwent resection of the esophagus. This report is confined to 72 operations performed in the division of the senior author for intrathoracic esophageal cancer. The overall 5-year survival rate was 35%. The 5-year survival rate according to stage was 80% for patients with stage 0, 50% for stage 1, 45% for stage 2. Usefulness of High Frequency Jet Ventilation for ventilation during open-chest surgery and a new technique of retrosternal esophagogastrostomy with EEA stapler were described precisely.

Treatment of the Occlusive Cerebrovascular Disease with a Selective Thromboxane A2 Synthetase Inhibitor
SINICHIRO OKAMOTO1, YASUHIRO YONEKAWA1, HAJIME HANDA1, YUTAKA HANNA1, YOSHIHIKO UEMURA1, ICHIRO YANO2, MASANORI TOYOSHIMA3, KENICHIRO IWATSUJI4, TETSUKI TERAURA1, SEN YAMAGATA1, TAKASHI SEKIO, HARUMI TSUDA1, GICHIRO UKITA2, YASUNORI INOU1, YUKIO SHIMIZU2, and HARUYASU SAWAMI2
Department of Neurosurgery, Faculty of Medicine, Kyoto University1, Department of Neurosurgery and Internal Medicine,1) Otowa Hospital, Department of Neurosurgery2 and Internal Medicine3, Kyoto Municipal Hospital, Department of Neurology, The second Kyoto Red Cross Hospital4, Department of Neurology, Rakuto Hospital5, Department of Neurosurgery, Shimizu Hospital6, and Department of Internal Medicine, Takeda Hospital7.

A selective inhibitor of the thromboxane A2 synthetase, OKY-046, was administrated for over 3 months to 29 patients with occlusive cerebrovascular diseases including 10 TIAs and 4 RINDs. The frequency of the ischemic episodes of TIA or RIND reduced remarkably after the oral administration of OKY-046, 600 mg a day. Of these, 2 patients experienced cerebral infarction during the study. The drug tended to reduce the ex vivo platelet aggregability induced by either arachidonic acid or collagen, but not by ADP or epinephrine. There was only one patient with adverse effect who complained of mild epigastralgia.
20 Experimental Study on the Prevention of Vasospasm Following Subarachnoid Hemorrhage by a Thromboxane A2 Synthetase Inhibitor, OKY-046

SHIGEAKI OHSUGI
Division of Neurosurgery, Brain Research Institute, Niigata University (Director: Prof. Dr. RYUICHI TANAKA)


The prevention of vasospasm by an inhibitor of thromboxane A2 synthetase OXY/046 was studied in the experimental subarachnoid hemorrhage of dog.

The degree of the vasospasm 3 days after SAH in the treatment group was remarkably decreased. Thromboxane B2 in the plasma of the jugular vein increased markedly in the control group, whereas it was remarkably inhibited in the treatment group. Local cerebral blood flow in the control group decreased after SAH, but increased significantly in the treatment group.

21 Eosinophilia in the Patients with Carcinomas of the Stomach and Colon, Release of Eosinophilopoietic Factor from Carcinoma Tissue

TATEMI KAJIWARA
The Second Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. Dr. KOICHI ISHIGAMI)


Cancer patients are occasionally accompanied by eosinophilia, but the mechanisms remain obscure. To elucidate one mechanism that may account for cancer-associated eosinophilia, the author studied the proliferating factor of eosinophil in human tumors from the patients whose peripheral eosinophil counts are over 500/mm.

Tumor cells were centrifuged at 600×g, 10000×g and 100000×g, respectively, and each extract was added to the human bone marrow cell culture, and eosinophilopoietic activity was assayed.

The result of this study showed that each extract from the tumors of eosinophilic patients had a eosinophilopoietic factor but no eosinophilopoietic activity was found in those from tumors of non-eosinophilic patients.

22 Experimental and Clinical Studies on Exocrine and Endocrine Gastric Functions Following Pancreatoduodenectomy with Preservation of the Stomach

HWI-CHA KIM
The 1st Department of Surgery, Faculty of Medicine, Kyoto University (Director: Prof. Dr. TAKAYOSHI TOBE)


Experimental findings in Pancreatoduodenectomized dogs indicated the importance of preservation of the pyloric ring and the duodenal bulb for prevention of a marginal ulcer. Therefore, we performed pancreatoduodenectomy with preservation of the stomach and the duodenal bulb in addition to physiological reconstruction in 10 patients without ulcerogenecity. In this series, all patients showed excellent results without any evidence of a marginal ulcer.

It was concluded that pancreatoduodenectomy with preservation of the stomach as well as the duodenal bulb is a reliable procedure for minimizing the surgical insult occurring after conventional procedures associated with gastric resection, if indication is selected.

23 Clinico-pathological Studies and the Result of Surgical Treatment of Esophageal Cancer

HIROTO HAYASHI
The Second Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. Dr. KOICHI ISHIGAMI)


Among 263 patients with squamous cell carcinoma of the esophagus who referred to our institution, 223 (84.4%) underwent resection of esophageal carcinoma with lymph node dissection. From the clinico-pathological studies and the statistical techniques of multivariant analysis, it was concluded that lymph node dissection of the upper mediastinum was useful to improve the rate of survival. The five-year-survival rate of the patients who had undergone curative resection for last five years was 45.6%, while it was 21.4% before then.
Effect of Hepatic Vagotomy on the Function of Biliary Tract and Parariarterial Sympathectomy of the Common Hepatic Artery as a Countermeasure

HIDEO ARIYOSHI
The Second Department of Surgery, Yamaguchi University School of Medicine.


The effect of hepatic vagotomy on the function of biliary tract was investigated in experimental dogs.

After hepatic vagotomy, the ability of the gallbladder contraction and the gallbladder tonus were reduced, however sphincter tonus was increased.

It was proved that the relative predominance of sympathetic innervation of the biliary tract caused such changes.

It was suggested that periarterial sympathectomy of the common hepatic artery improved such disorder of the biliary function.

Application of Solid Low Residue Diet Consisting Mainly of Elemental Diet in Colorectal Diseases

YOZO AOKI, MASATAKA OHTA, YUKITOMO SAKAMOTO, KOSUKE SHIMADA, MASAIKO SAKAGUCHI, NOBUO TAKEI and MASAHARU KATSUMI


An application of our modified elemental diet (ED) to Crohn's disease, low output fistula caused by anastomotic leak after colonic surgery, and pre- and postoperative use in colorectal surgery are presented. The modified ED, which had been devised to make the patients easier to take it orally, was prepared and cooked by adding ED with wheat flour in the ratio of 3 to 1. The clinical usefulness of the modified ED became obvious in the treatment of the above pathological conditions.

The limit in the use of this modified ED for preoperative colonic preparation are also discussed.
Percutaneous Microwave Tissue Coagulation in Liver Biopsy: Experimental and Clinical Studies
YOJI TABUSE, KATSUYOSHI TABUSE, KAZUNARI MORI, YUGO NAGAI, YASUHITO KOBAYASHI, HIROMU EGAWA, HIROSHI NOGUCHI, HIROKI YAMAUE, MASAHARU KATSUMI and YASUKO IKONAGASAKI
Department of Gastroenterological Surgery, Wakayama Medical College (Director: Prof. Dr. MASAHARU KATSUMI)
*Second Department of Internal Medicine, Wakayama Medical College (Director: Prof. Dr. ISAO YATAKA)

The microwave tissue coagulator was applied for the prevention of hemorrhage and malignant seeding in the needle tract after liver biopsy, as it was an excellent device useful for tissue coagulation and hemostasis.

A specially designed microwave needle electrode, that permitted percutaneous microwave coagulation through the biopsy needle, was examined experimentally and proved to be useful and safe.

Clinically, microwave coagulation combined with liver biopsy was carried out on 44 patients with liver disease and exerted a perfect hemostatic effect with no complications.

It seems realistic to presume that damaged tumor tissue and malignant cells scattered in the needle tract might have been necrotized by microwave coagulation.

Biomechanical Effects of Innominate Osteotomy
WOLFGANG KÜSSETTER, YASUSUKE HIRASAWA*
Department of Orthopaedic Surgery, University of Würzburg (Director: Prof. Dr. A. RÜTTER)
*Federal Republic of Germany.

The simple pelvic osteotomy in the technique of SALTER was simulated on a macerated female pelvis. The effect of tilting the distal segment of the pelvis outwards, forwards and downwards with different osteotomy angles in the range between 0 and 40° was examined. Depending on the angle of osteotomy, the angle of rotation and the amount of the displacement of the distal segment of the pelvis were measured as well as the CE angle. The data thus ascertained give the operator planning parameters with whose help he can preoperatively estimate the remaining hip parameters depending on the desired improvement of the acetabulum.

Regeneration of Cirrhotic Remnant Liver after Partial Hepatectomy, Especially the Relationship between Insulin Receptor and Hepatic Regeneration
HIDESHİ MORIOKA
The 2nd Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. Dr. KOICHI ISHIGAMI)

Humoral factors, especially pancreatic hormones, insulin and glucagon, have been suggested to stimulate liver regeneration following partial hepatectomy.

But these stimulants seem to be not so effective for cirrhotic livers. The author supposed the receptors of these factors may be damaged in cirrhotic liver hepatocytes and studied the uptake of 125I-labelled insulin into the normal or cirrhotic rat liver hepatocytes by light microscope autoradiography. Further, the author examined the effectiveness of insulin, glucagon and prostaglandin E1, as hepatotropic factors, to the rat liver regeneration after 70% partial hepatectomy.

Clinical and Experimental Investigations on Pathogenesis of Gastric Mucosal Injury in Pancreatic Insufficiency
(1) Observations in Patients with Pancreatic Disease
SHUHEI HASHIDA
The 1st Department of Surgery, Faculty of Medicine, Kyoto University (Director: Prof. Dr. TAKAYOSHI TOBE)

Among 74 patients with pancreatic disease, gastric acid output and gut hormones were measured, and the gastric and duodenal mucosa was examined endoscopically.

Of the 74 patients, 9 showed hyperacidity, 27 normoacidity, and 38 hypoaсidity, moreover, 18 (24%) had a peptic ulcer at the time of investigation or a previous history of it.

Many patients with pancreatic disease had gastric and duodenal mucosal injury, but most of them did not have hyperacidity. Of the 18 patients with mucosal injury, 13 (72%) had normoacidity or hypoaсidity.

It is concluded that the pathogenesis of peptic ulcer depends much more on defensive than on offensive factors.
Clinical Experimental Evaluation of the Pathogenesis of Gastric Mucosal Injury in Pancreatic Insufficiency

SHUHEI HASHIDA

The 1st Department of Surgery, Faculty of Medicine, Kyoto University (Director: Prof. Dr. TAKAYOSHI TOBE)


To clarify the pathogenesis of mucosal injury with pancreatic insufficiency, gastric mucosal blood flow was measured by the hydrogen clearance technique and the heated thermocouple method.

In 7 anesthetized mongrel dogs, gastric mucosal blood flow was measured before and 3 weeks after pancreatic duct ligation. In 7 other anesthetized mongrel dogs, gastric mucosal blood flow was measured before and 3 weeks after ligation of both the pancreatic and common bile ducts.

After pancreatic duct ligation, no change was found in the corpus ventriculi, but the blood flow in the antrum was significantly decreased to 69.0% of the pre-operative level. After ligation of both the pancreatic and common bile ducts, the gastric mucosal blood flow was significantly decreased to 72.3% in the corpus and 75.6% in the antrum.

Gastric mucosal lesion was not found after pancreatic duct ligation or after ligation of both the pancreatic and common bile ducts. But histamine-induced gastric mucosal lesion was observed in the part with decreased gastric mucosal blood flow after ligation.

Immunological Studies on the Colorectal Cancer

MASAHI FUNAMOTO

The Second Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. Dr. KOICHI ISHIKAMI)


NK activity of the peripheral blood lymphocytes, serum IAP level and the cellular infiltration around the tumor of the colorectal cancer patients were examined.

The decrease in NK activities and the increase in IAP levels before surgical operation were observed in the Stage IV or V patients with colorectal cancer. Surgical curability had relation to NK activities and IAP levels before operation. The negative correlation between NK activity and IAP level was found. The T lymphocytic infiltrations around the tumor decreased with advance of staging but the subsets of them did not show the significant change in each stage.

Dynamics of Coagulation-Fibrinolysis by Cathcholamine in Shock

HIRONORI KANEKO

The 2nd Department of Surgery, Toho University School of Medicine (Director: Prof. Dr. SETSUO TAKEUCHI)


We studied the effects of catecholamines on coagulation-fibrinolysis and obtained following results on the relationship between them and DIC during experimental and clinical shock.

1) In experimental adrenalin and noradrenalin administration using dogs, fibrinolytic activation was an characteristic phenomenon.
2) In hemorrhagic shock, observed were an activation of fibrinolysis and a slight activation of coagulation as were in the experimental adrenalin dosing.
3) In endotoxin shock, DIC was not induced via catecholamines but directly by endotoxin itself for coagulation and fibrinolysis were less activated by catecholamines.

These results suggest that catecholamines did not play an important role in DIC.

Application of Endoscopic Papillotomy to Carcinoma of the Duodenal Papilla: As Jaundice Reducing Treatment and as Pretreatment of Laser Irradiation

HITOYASU KATSUDA, HIROYUKI SHIMIZU and SHINICHI NAGAMINE

Department of Surgery, Wakayama Red Cross Hospital


Endoscopic papillotomy was performed as a jaundice reducing treatment and as a pre-treatment of endoscopic laser irradiation on three patients with carcinoma of the duodenal papilla and was judged effective. In two patients with jaundice, a satisfactory jaundice reducing effect was obtained one month after endoscopic papillotomy. As for the application to pre-treatment of endoscopic laser irradiation, the present method was very useful for complete exposure of a tumor but improvement of quartz fiber and endoscopic devices was considered necessary for the execution of laser irradiation.
Prevention of Vasospasm Following Subarachnoid Hemorrhage Using a Thromboxane A2 Synthetase Inhibitor (OKY-046)—Clinical Study among Multiple Institutions—

Yasuhiro Yonekawa1, Hajime Handa1, Shin-ichiro Okamoto1, Tomio Ohta2, Yoshinari Kamijo3, Yoshifumi Oda3, Akinori Kondo4, Kiyoshi Nin4, Toyohiro Yamamoto5, Sadahiko Ban5, Satoshi Nakao5, Shin-ichi Ohtsuka5, Haruhiko Kikuchi5, Hisashi Shishido5, Shun-ichi Yoneda7

Department of Neurosurgery, Kyoto University


Thromboxane A2 synthetase inhibitor (OKY-046) was administered on 20 patients with ruptured aneurysm (registered from Aug. 1985 to Jan. 1986), to evaluate its preventive effect against angiographic and symptomatic vasospasm following subarachnoid hemorrhage.

Patients with negative and minor angiographic vasospasm amounted to 69% of the series, while patients with negative and minor symptomatic vasospasm 90%. Patients without LD and with small LD occupied 76%, while patients with ADL 0~1 75%. These results are considered to be superior in prevention of vasospasm to those of the placebo group of the double blind study of OKY whose result has been reported recently.

It is thus concluded that this thromboxane A2 synthetase inhibitor OKY should be taken into consideration as an effective treatment against vasospasm following subarachnoid hemorrhage.

Clinical Experience of Iotrolan

Masatsune Ishikawa and Hajime Handa

Department of Neurosurgery, Faculty of Medicine, Kyoto University


A new non-ionic water-soluble contrast medium, IOTROLAN, was used for myelography in 10 cases and CT cisternography in 1 case. Satisfactory demonstration of spinal or intracranial subarachnoid space was noted as comparable to the metrizamide. It is convenient for clinical practice not necessary to solve the contrast medium at the spinal tap. There was no major side-effect and its frequency was almost the same as the metrizamide, with tendency of milder in degree and delayed on onset. Thyroid function was not affected in most cases, although delayed recovery was noted in one case of hypothyroidism.
Experimental Studies on Tolerance of Brain to Ischemia Following Occlusion of Cerebral Arteries with Respect to Electrophysiological Parameters

HIDEYUKI SUWA

Department of Neurosurgery, Faculty of Medicine, Kyoto University (Director: Prof. Dr. Hajime Handa)


Experimental studies were undertaken on cat to apply somatosensory evoked potentials as a monitoring tool for assessing the brain function during temporary occlusion of cerebral arteries. Somatosensory evoked potentials were generated in dorsal column-mediallemniscal pathway, which are more tolerant electrophysiologically to ischemic insult than auditory pathway. SEP seems to be more reliable in practice than BAEP as a monitoring method of the brain stem function.

The Role of VIP in the Experimental Dumping as an Humoral Factor

HIKARU HARADA

The Second Department of Surgery, Yamaguchi University School of Medicine (Director: Prof. Dr. Koichi Ishigami)


The VIP level in the portal vein blood was increased and that in the tissue extract from the duodenum was decreased in the experimental dumping model dogs.

In the continuous infusion of VIP into the portal vein at the rate of 4 µg/kg/hr, a more increased cardiac output and decreased systemic vascular resistance were observed than at the rate of 1 µg/kg/hr.

The author proposes that VIP is one of the humoral factors in the occurrence of experimental dumping.

Effect of Secretin and Vasoactive Intestinal Polypeptide on Mucosal Defensive Factors in Cysteamine-induced Duodenal Ulcer

NORIFUMI JOHN

The Second Department of Surgery, Yamaguchi University School of Medicine


The duodenal mucosal blood flow decreased after the administration of cysteamine. It was significantly inhibited after injection of either secretin or VIP. Healing process of cysteamine-induced duodenal ulcer was studied using anti Bromodeoxyuridine monoclonal antibody, especially from the viewpoint of cellular kinetics of the Brunner's gland.

At the early stage of healing process, labelled cells remarkably increased in the Brunner's glands. And secretin activated cell proliferation in the Brunner's gland.
Intra-Aortic Balloon Pumping in Infants

HIROYUKI FUKUMASU*, NORIKAZU TATSUTA**, YOSHIFUMI OKAMOTO***, TOSHIHIKO BAN**

* Department of Cardiovascular Surgery, Takeda Hospital, Kyoto.
** Department of Cardiovascular Surgery, Otzu Red Cross Hospital, Shiga.
*** Department of Cardiovascular Surgery, Faculty of Medicine, Kyoto University, Kyoto.


From October 1981 to August 1984, intra-aortic balloon pumping (IABP) was applied in nine patients who were from 2 months to 7 years old, weighted from 3.4 to 18 kg. In eight patients, the miniaturized intra-aortic balloons made in house with 1.0 to 10 ml volumes mounted on No. 3.5 to 6.0 F catheters were used. Effective diastolic augmentation of arterial pressure was accomplished in seven and suprasystolic diastolic augmentation was accomplished in five. There were three long-term and three short-term survivors. Conclusively miniaturization of the equipment has permitted IABP to be used effectively in pediatric patients.

Clinical Analysis of Long-Term Administration of Glyceol

MASATSUNE ISHIKAWA, HAJIME HANDA1, JOHJI HANDA2, KIMIYOSHI HIRAKAWA3, TAKASI NAKAMURA3, TAKASHI NAKAMURA4, MASAYUKI FUKUMA4, SIGEYOSI SIRAMINE4, SINOBU TAKUTOMO5, KENJI ODARA5, TOSIROU NISIMURA5, KENJI OGINO6, KAZUYOSI WATANABE1, MITUO TOYAMA1, OSAMU YASUHARA12 and KIMIO SAKAI13

Department of Neurosurg. Kyoto University10, Department of Neurosurg. Shiga University of Medical Science10, Department of Neurosurg. Kyoto Prefectural Medical College13, Department of Neurosurg. National Kyoto Hospital11, Departments of Neurosurg. and Neurology10, Kyoto First Red Cross Hospital, Department of Neurosurg., Saiseikai Kyoto Prefecture Hospital10, Department of Circulation Medicine, Medical Center for Adult Diseases, Shiga6, Department of Internal Medicine, Kouga Hospital10, Department of Internal Medicine, Kohoku General Hospital10, Department of Neurosurg., Oumihachimann City Hospital10, Departments of Neurosurg.10 and Internal Medicine10, Department of Internal Medicine, Moriyama City Hospital10


A cooperative study of long-term administration of Glyceol for more than 7 days was done in 140 cases for evaluating the effectiveness and safety in various neurological disorders such as cerebral infarction, intracerebral hemorrhage, brain tumors, head injury and others.

The overall improvement was noted in 88.5%. The patients with cerebral infarction and brain tumor with moderate severity had more favorable effect, and their improvement was closely related to the dosage and duration of Glyceol. No major side-effect was noted in most of cases.

Unfavorable Effect of Abdominal Arteriography on Obstructive Jaundice

YOSHIKATSU OKADA, TAKASHI NOGUCHI, YOSHIFUMI KAWARADA and RYUJI MIZUMOTO

First Department of Surgery, Faculty of Medicine, Mie University


Out of 48 patients underwent AAG after PTCD for obstructive jaundice, an intractable jaundice developed in 18 cases (37.5%) with an aggravation of the liver function in blood chemistry and a decrease of the daily bile output, in spite of the adequate biliary decompression. Especially, among 12 patients, who showed an increase of serum levels of both T.BIL and Alp after AAG, an intractable jaundice developed in 8 cases with the high incidence of 66.7%.

Although AAG is one of the useful diagnostic modalities, the indication should be strictly determined, considering the unfavorable effects on obstructive jaundice.
Abdominal Surgery in Patients with Heart Block with Cardiac Pacemaker in Place

Takaaki Sudo, Ryuji Shobu, Hidetaka Kanazawa, Ryuji Tsubakimoto, Yoshiro Fujii, Masao Kawamura, Yoh Kasahara, Hiroya Umemura, Sei Shiraha, Takeshi Kuyama
Second Department of Surgery, Kinki University School of Medicine.
Takasumi Nishioka, Hidetaka Oku, Hitoshi Shirotani
Department of Cardiovascular Surgery, Kinki University School of Medicine

Recent progress in medical electronics is striking, and it has become possible to perform with safety the gastrointestinal surgery in patients associated with certain heart block disease by the use of pacing. We have recently experienced six cases on which the gastrointestinal surgery was performed under pacing.

Computed Tomography with Cystic Acoustic Schwannomas

Hirofumi Nioka, Akira Saito, Kazumitsu Kyoshima and Jyoji Handa
Department of Neurosurgery, Shiga University of Medical Science, Ohtsu, Japan

Although the computed tomography scanning is a single, most useful radiologic method with high sensitivity and specificity for a diagnosis of acoustic schwannoma, its appearance may closely mimic that of other mass lesions in the cerebellopontine angle region such as malignant gliomas, metastatic tumors, abscesses and several others. Three such cases are reported.

Cholelithiasis in Hereditary Spherocytosis: Report of a Case

Yoh Kasahara, Masahiko Takemoto, Kiichi Nakao, Shozo Ueda, Yukikazu Yamada, Narumi Sonobe and Takeshi Kuyama
The Second Department of Surgery, Kinki University School of Medicine (Director: Prof. Dr. Takeshi Kuyama)

The postoperative course of a 20-year-old female with cholelithiasis in hereditary spherocytosis (HS) undergoing simultaneously cholecystectomy and splenectomy was uneventful. In 56 surgical cases of cholelithiasis in HS including our own since 1960 in Japan, the male-to-female ratio was 1:1.9 with no significant difference in the mean age between sexes. Patients aged 30's and younger were prevalent. Gallstones mainly composed of bilirubin were located in the gallbladder in general. Biliary tract surgery and splenectomy were performed simultaneously in 92 percent of the cases. To prevent crises and other complications, biliary tract surgery should be carried out in HS patients with cholelithiasis.

Thyroid Cancer of a 13 Year-Old-Girl

Yuzo Yamamoto, Kimio Henmi, Hisashi Sawada, Masanobu Washida, Naritaka Yamamoto, Isao Satoh, Toyotake Okanoue, Hiromi Mitani
Ako Municipal Hospital, Department of Surgery (Director: Washiro Ogino M.D.)

Although case reports of the childhood thyroid cancer are increasing in recent years, only 100 or so cases have been reported to date in Japan. Our recent experience with a 13-year-old girl, whose lesion was detected in a school medical examination and who subsequently underwent a successful resection, is reported. The special characteristics of thyroid cancer in children and the importance of early diagnosis is discussed.
Development of a Bioassay of Opsonic Activity for Kupffer Cell and Humoral Factors Stimulating Phagocytosis

SHIGEKI ARII
The 1st Department of Surgery, Faculty of Medicine, Kyoto University

Using the primary culture of rat Kupffer cells which maintain the specific function of mononuclear phagocyte in vitro, a bioassay of opsonic activity was developed. As phagocytable material 51Cr-endotoxin was employed because of its biological nature that endotoxin is exclusively phagocytized by Kupffer cells and possesses a variety of pathogenetic roles.

Moreover, the opsonic index measured with present method was not affected by opsonic proteins such as IgG, complement components or plasma fibronectin. The findings suggest that unknown humoral substances enhancing the opsonic index are present in the fraction of 50%~60% saturated ammonium sulfate precipitates.

Biological Significance and Prognostic Role of Opsonic Activity for Kupffer Cell Phagocytosis in Experimental Liver Injuries and Partially Hepatectomized Patients

SHIGEKI ARII
The 1st Department of Surgery, Faculty of Medicine, Kyoto University

In the rats with OCl4-induced liver cirrhosis, high opsonic activity was observed, being suggested to be a compensatory response for maintaining the host defense. By contrast, in the rats with fulminant hepatitis, opsonic index was remarkably decreased. Such a decrease indicated a failure of the compensatory mechanism in the reticuloendothelial system.

Based on the above results, the clinical cases were analyzed. Three distinct types of responses in the opsonic index after partial hepatectomy were observed. Evidence will be presented indicating that the opsonic index is a reliable indicator of the outcomes of the partially hepatectomized patients.

Experimental Studies on Influences of Portal Vein Interruption on the Pancreas

KOUSUKE SHIMADA
Department of Gastroenterological Surgery, Wakayama Medical College

Influences of transient portal vein interruption on the pancreas were studied in rats. As regards influences on the general condition, an increase of serum amylase activity and serum acid phosphatase activity, and a decrease of femoral artery pressure were observed. As regards changes of the pancreas, a decrease of oxygen saturation in the tissue and acid phosphatase activity in the homogenate, an increase of wet weight, and histological changes by light and electron microscopy were observed. These changes were in proportion to the length of interruption time. These changes were not reduced by divided interruption but slightly reduced by premedication with a protease inhibitor.

Acute Effects of 1-[Bis(4-fluorophenyl)-methyl]-4-(2,3,4-trimethoxybenzyl)-piperazine dihydrochloride, KB-2796, on the Cerebral Blood Flow in Unanesthetized Cats.

TOSHIRO KANAZAWA, YOKO NAKASU, MASAYUKI MATSUDA, and JYOJI HANDA
Department of Neurosurgery, Shiga University of Medical Science
Arch Jpn Chir 55: 682~688, 1986

Effects of an intravenous administration of KB-2796, a new synthetic Ca++ channel blocker, on the cerebral blood flow in unanesthetized immobilized cats were studied using hydrogen clearance method. Systemic blood pressure showed a mild decrease, but pCO2, pO2, and pH of the arterial blood remained unchanged during the experiments. KB-2796 in the dosage of 0.1 and 0.3 mg/kg showed a dose dependent increase in the cerebral blood flow. Effects of 1.0 mg/kg did not differ significantly from those of 0.3 mg/kg. As several drugs known to increase the cerebral blood flow in anesthetized experimental animals fail to show any such effects in unanesthetized conditions, it seems to be stressed that KB-2796 does increase the cerebral blood flow in cats in the unanesthetized, immobilized condition as well.
Synergy of Microwave Coagulation and Streptococcal Preparation (OK-432) in Experimental Tumor in Regard to the Interleukin 2 Producing Activity

Hiroki Yamaue, Masaharu Katsumi, Katsuyoshi Tabuse, Yoji Tabuse, Hiromu Egawa, Hiroyuki Noguchi, Yugo Nagai, Yasuhito Kobayashi and Kazunari Mori

Department of Gastroenterological Surgery, Wakayama Medical College


The interleukin 2 (IL-2) producing activity of spleen cells was investigated in use of the microwave coagulation (MC) with OK-432 in experimental tumor. Microsized Meth A fibrosarcoma were treated by MC and/or OK-432. Tumor growth in the group treated by both methods was significantly inhibited as compared with that of one method alone. Viable percentage was higher in the group treated by both methods. Similarly, from the point of view of IL-2 producing activity of spleen cells, synergy of MC and OK-432 was proved.

Depending upon the facts mentioned, the clinical application was done. The patients treated by both MTC and OK-432 were improved in symptoms and signs, still more IL-2 producing activity was more augmented.

54

Treatment of Cerebral Infarction in the Acute Stage with Synthetic Antithrombin MD-805: Clinical Study among Multiple Institutions

Yauhiro Yonekawa, Hajime Handa, Shinichiro Okamoto, Yoshinari Kamijo, Yoshifumi Oda, Jun-Ichiro Ishikawa, Harumi Tsuda, Yoshio Shimizu, Manabu Sato, Tatsuto Yamagami, Ichiro Yano, Yoshihiro Horikawa, Eimei Tsuda

Department of Neurosurgery, Kyoto University, Department of Neurosurgery, Ohtsuka Cross Red Hospital, Department of Neurosurgery, Maizuru Municipal Hospital, Department of Neurology, Kyoto II Red Cross Hospital, Department of Neurosurgery, Shimizu Surgical Hospital, Department of Neurosurgery, Ikijinkai Takeda Hospital, Department of Neurosurgery and Neurology, Rakuwakai Otowa Hospital, Department of Neurosurgery, Soseikai Hospital


55

Clinical Application of the Urokinase-Immobile Polyurethane Catheter

Masahiko Matsumoto, Yoshifumi Okamoto, Yutaka Konishi, Shinichi Nomoto, Junichi Soneda, Yasunori Fujjwara, Kazunobu Nishimura, Toshihiro Ban and Katsuhiko Suyama

Department of Cardiovascular Surgery, Faculty of Medicine, Kyoto University, *Unitika Research and Development Center


Urokinase-immobile polyurethane tubes which had a thrombosis resistant luminal surface were used in 23 patients as central venous catheters. Catheters were inserted into the inferior vena cava via the femoral vein at the time of operation to evaluate the central venous pressure and were then used for intravenous fluid therapy. These catheters were removed one to 10 days (the average 4.3 days). Macroscopically, no thrombus was seen on the surface of the catheter. These catheters were then examined by scanning microscopy to evaluate the surface characteristics. No thrombus formation was observed within five days. After seven days, the luminal surface of the catheter was covered with a thin cellular thrombus formed by platelets, red blood cells and white blood cells entrapped in fibrin strands. Our study demonstrated that the urokinase-immobile Catheter had adequate antithrombogenic activity for five days of clinical use.

京都大学医学部心臓血管外科 松本雅彦, 岡本好弘, 小西 裕, 野本慎一, 松田純一, 藤原康典, 西村和宏, 伴 敬彦

ユニチカ中央研究所 陶野勝彦
Extrahepatic Growing Hepatocellular Carcinoma

TAKAAKI SUDO, RYUJI SHOBU, HIDETAKA KANAZAWA, RYUJI TSUBAKIMOTO, YOSHIRO FUJII, MASAO KAWAMURA, HIROYA UMEMURA, SEI SHIRAHA, TAKESHI KUYAMA, and TAKASHI SHIMOTO*

The Second Department of Surgery Kinki University School of Medicine.
* Department of Surgery, Kosei Hospital


A case of extrahepatic growing hepatocellular carcinoma is present and Japanese literatures were reviewed. A 42 year old man was admitted to this hospital on December 27, 1985 complaining of epigastralgia and nausea. Echogram and CT showed large tumor in the right hepatic lobe. By the operation, large extrahepatic growing hepatocellular carcinoma was resected.
Effects of 1-[bis(4-fluorophenyl)methyl]-4-(2,3,4-trimethoxybenzyl)piperazine dihydrochloride, a New Synthesized Ca2+ Blocker KB-2796, on Free Fatty Acid Liberation in Ischemic Brain in Rats

TOSHIRO KANAZAWA, MINORU KIDOOKA, MASAYUKI MATSUDA, and YOJI HAN

Department of Neurosurgery, Shiga University of Medical Science.


Effects of a new synthetic Ca2+ antagonist KB-2796 on the liberation of free fatty acids in the ischemic rat brain were studied. KB-2796 attenuated brain free fatty acid accumulation following decapitation, and this effect was most pronounced in 1-minute- and 60-minute-ischemia models. This effects of KB-2796 seem to potentiate its therapeutic usefulness in cerebrovascular diseases.

Refobacin Concentration in Blood Serum, Urine and Wound Secretion: A Comparative Study of Refobacin-Palacos and Implant-Gentamicin in the Total Hip Replacement

L. RABENSEIFNER, R. LEIMBECK*, Y. HIRASAw**

Department of Orthopaedic Surgery, König-Ludwig-Haus, University of Würzburg, West Germany


The value of the Gentamicin concentrations in serum, urine and wound secretions of 9 patients whose total prosthesis were implanted with Refobacin-Palacos was compared with the analysis of 8 patients whose endoprostheses were implanted with Implant-Gentamicin. The following results were obtained.

1) The Implant-Gentamicin group reflected a positive bioequivalence with an overall high Gentamicin concentration wound secretions and blood serum with relative bioavailability of the Gentamicin.

2) The renal elimination in Refobacin-Palacos group was much more distinct than in Implant-Gentamicin group, especially on the first day.

Giant Aneurysm of the Azygos Anterior Cerebral Artery

TATSUHITO YAMAGAMI, Hajime HAndA, NOBUO HASHIMOTO, HIROKAZU NAGATA and HIDETOSHI WATANABE

Department of Neurosurgery, Kyoto University Medical School


Giant aneurysm of the azygos anterior cerebral artery is reported. The aneurysmal wall was partially calcified. This aneurysm was successfully clipped. Giant aneurysm of this location is very rare.

Analysis of Microvascular Decompression for the Treatment of Trigeminal Neuralgia and Hemifacial Spasm

KOREAKI MORI, MASANORI MORIMOTO, MASAIRO KURISAKA, YASUFUMI UCHIDA, and PATRICK EGHWRUDJAKPOR

Department of Neurosurgery Kochi Medical School Kochi, Japan


Results of the treatment of 61 patients with trigeminal neuralgia (TN) and 65 patients with hemifacial spasm (HFS) by microvascular decompression (MVD) and their problems are here reported. In atypical TN, the results were less favorable. Based on the degree of abnormal vascular contact on the trigeminal nerve, it is possible that the root entry zone of the trigeminal nerve in TN may be more extensive than the root exit zone of the facial nerve in HFS. In cases of HFS, MVD should be limited to typical cases with care being taken to thoroughly examine the root exit zone in order not to miss any offending vessel. It is also necessary to avoid undue manipulation to prevent operative complications.

Analysis of Microvascular Decompression for the Treatment of Trigeminal Neuralgia and Hemifacial Spasm

KOREAKI MORI, MASANORI MORIMOTO, MASAIRO KURISAKA, YASUFUMI UCHIDA, and PATRICK EGHWRUDJAKPOR

Department of Neurosurgery Kochi Medical School Kochi, Japan


Results of the treatment of 61 patients with trigeminal neuralgia (TN) and 65 patients with hemifacial spasm (HFS) by microvascular decompression (MVD) and their problems are here reported. In atypical TN, the results were less favorable. Based on the degree of abnormal vascular contact on the trigeminal nerve, it is possible that the root entry zone of the trigeminal nerve in TN may be more extensive than the root exit zone of the facial nerve in HFS. In cases of HFS, MVD should be limited to typical cases with care being taken to thoroughly examine the root exit zone in order not to miss any offending vessel. It is also necessary to avoid undue manipulation to prevent operative complications.

Giant aneurysm of the azygos anterior cerebral artery is reported. The aneurysmal wall was partially calcified. This aneurysm was successfully clipped. Giant aneurysm of this location is very rare.
Mediastinal Hemorrhage as a Complication of Retrograde Brachial Angiography

MASARU ICHIKAWA, KAZUYOSHI WATANABE and TATSUYA OKADA
KENICHI MATSUMURA

Department of Neurosurgery, Shiga University of Medical Science, Ohtsu, Shiga, Japan


Mediastinal hemorrhage with extravasation of the contrast medium occurred as a complication of retrograde brachial angiography in a 71-year-old female. Immediately after a manual injection of the contrast medium, the patient complained of severe chest pain and the chest X-ray showed a picture not unlike a dissecting aneurysm of the aorta. Dissection of the aorta was excluded by follow-up radiologic studies.

Transfemoral manipulation of a guide wire and/or a catheter prior to the retrograde brachial injection was assumed to have caused intimal damage in the brachiocephalic artery.

A Case of Hereditary Spherocytosis Associated with Cholelithiasis in a 6-Year-Old Boy


*Department of Surgery, Wakayama Red Cross Hospital **Second Department of Surgery, Faculty of Medicine, Kyoto University, ***Hoshino I-cho Clinic

A 6-year-old boy was admitted for anemia and jaundice. Like his father, he was diagnosed as hereditary spherocytosis. Abdominal ultrasonography suggested the existence of cholelithiasis. Splenectomy and simultaneous cholecystectomy were performed with favourable results. Cholelithiasis seldom appears in the children aged 10 years or less, even if it is associated with hereditary spherocytosis. As being non-invasive, meanwhile, abdominal ultrasonography can be performed even for children without fear. In diagnostic case of hereditary spherocytosis, it is important to investigate by means of abdominal ultrasonography whether or not cholelithiasis is associated with.

Nothnagel Syndrome with Midbrain Hemorrhage

AKIHKO SHINO, MASARU ICHIKAWA, MASAYUKI MATSUDA, and JYÖJI HANDA

Department of Neurosurgery, Shiga University of Medical Science, Ohtsu, Japan


A 55-year-old male suffering from headache and diplopia was found to have right oculomotor palsy, paralysis of upward gaze of his left eyeball, and cerebellar ataxia on the left side, signs known as Nothnagel syndrome that is quite rare. Repeated CT scanings and MR imagings confirmed the diagnosis of spontaneous hemorrhage in the midbrain, whereas angiography failed to disclose any vascular anomalies.

Reports on the Nothnagel syndrome were reviewed, and the oculomotor innervation of the contralateral superior rectus muscle was discussed.