

CONTENTS

**Abstracts of Scientific Papers
1988 Annual Meeting
American Society of Anesthesiologists**

CIRCULATION I

- Transesophageal Pulse-Wave Doppler Assessment of Cardiac Output. A1
K. LaMantia, S. Harris, K. Mortimore, E. Davis, and P. G. Barash
- Pulsed Doppler Assessment of Diastolic Function Before and After Cardiopulmonary Bypass. A2
C. S. Rinder, L. R. Wheeler, and W. D. Alpern
- Intraoperative Surgical Decisions: A New Role for the Anesthesiologist-Echocardiographer. A3
P. E. Curling, D. J. Schultz, K. R. Kanter, E. L. Jones, and J. M. Craver
- Simultaneous Measurements of Cardiac Volumes, Areas, and Ejection Fractions by Transesophageal Echocardiography and First Pass Radionuclide Angiography. A4
F. M. Clements, D. Harpole, T. Quill, R. H. Jones, J. Aladj, and R. McCann
- Comparison of Two Automated ST-Segment Analysis Systems, EKG, (Including T Wave Inversion Analysis), and Transesophageal Echocardiography for the Diagnosis of Intraoperative Myocardial Ischemia. A5
J. E. Ellis, M. F. Roizen, S. Aronson, S. B. Feinstein, J. E. Briller, K. Rangacharl, B. L. Gewertz, and C. K. Zarins
- The Influence of Right Ventricular Function on the Relationship Between End-Diastolic Volume and Stroke Volume. A6
D. L. Reich, S. N. Konstadt, and D. M. Thys
- The "Natural History" of Segmental Wall Motion Abnormalities Detected by Intraoperative Transesophageal Echocardiography: A Clinically Blinded, Prospective Approach. A7
M. J. London, J. F. Tubau, W. G. Wong, E. Layug, and D. T. Mangano
- Effects of Anesthetics on the Regional Myocardial Function of the Ischemic Heart as Assessed by Quantitated Transesophageal Echocardiography. A8
T. E. Stanley, III, F. M. Clements, L. R. Smith, T. N. Shelton, J. R. Jacobs, and N. P. deBruijn

CIRCULATION II

- Protamine-Specific IgE Antibodies as Predictors of Adverse Reactions in Insulin Dependent Diabetic Patients. A9
D. Nyhan, M. Weiss, B. Chen, T. Blanch, J. Harrow, J. Levy, M. Roizen, F. Adkinson, and C. Hirshman
- Sex Hormone Related Changes in Response to Serotonin in Isolated Rabbit Basilar Artery. A10
J. Futó, J. A. Holt, R. Finn, Y. Sato, J. P. Kupferberg, and J. Moss
- Systemic Arterial Blood Pressure Influences the Cross-Sectional Area of the Descending Thoracic Aorta. A11
Z. Hillel, E. Zane, and D. Thys
- Effect of Hydralazine and Prostacyclin on Pulmonary Pressure Flow Curves. A12
R. F. McLean and W. H. Noble
- Changes in Clot Formation Induced by Hydroxyethyl Starch and Dextran-40: Assessment by Thrombelastograph and Sonoclot®. A13
M. N. Siegel, D. G. Bjoraker, N. Gravenstein, and S. R. Goodwin
- Right Ventricular End-Systolic Pressure-Volume Relation During Propofol Infusion. A14
C. Martin, P. Saux, J. Albanese, B. Eon, and F. Gouin
- The Pericardium Modulates the Effects of Respiration on Ventricular Performance. A15
M. Takata, W. Mitzner, and J. L. Robotham
- Volatile Anesthetics Depress the Binding of Calcium Channel Blocker to Purified Cardiac Sarcolemma. A16
B. Drenger and T. J. J. Blanch
- Adrenergic Response to Nicardipine in the Management of Postoperative Hypertension. A17
S. M. Perry, D. Smith, P. Meacham, and M. Wood
- Nifedipine, A Calcium Channel Blocker, Mimics the Effect of Volatile Anesthetics on Myocardial Force and Stiffness. A18
O. Y. Chung, M. R. Berman, and T. J. J. Blanch
- Hypoxic Pulmonary Vasoconstriction in Cell Culture. A19
T. R. Murray, E. J. Macarak, and B. E. Marshall
- The Effects of Nitrous Oxide on the Pulmonary Circulation and Right Ventricular Function in Patients with Pulmonary Hypertension. A20
S. N. Konstadt, D. L. Reich, K. Yeager-Costoso, and D. M. Thys

CIRCULATION III

- Halothane and Isoflurane Effects on Myocardial Blood Flow During Aortic Cross Clamping in Dogs with a Critical Coronary Stenosis. A21
J. A. Wahr, C. B. Hantler, K. Gallagher, and P. R. Knight
- Coronary Vasodilators Enflurane, Isoflurane, and Dipyridamole Induce Myocardial Oxygen Shunting. A22
H. Habazettl, P. F. Conzen, J. Hobbahn, T. Granetzny, A. E. Goetz, K. Peter, and W. Brendel
- Effects of Isoflurane and Dipyridamole on Perfusion of the Collateral Flow Dependent and the Normally Supplied Myocardium. A23
P. F. Conzen, J. Hobbahn, P. Gonschior, G. Seidel, A. E. Goetz, K. Peter, and W. Brendel
- Do Isoflurane and Halothane Attenuate Coronary Artery Constriction in Pigs? A24
T. M. Witzeling, J. C. Sill, J. M. Hughes, M. Nugent, and G. A. Blaise
- Functional Effects of Isoflurane-Induced Coronary Steal Depend on Changes in Subendocardial Perfusion. A25
N. C. T. Wilton, P. Knight, B. Martin, K. Ullrich, and K. Gallagher
- Effects of Isoflurane Versus Halothane on Well-Developed Coronary Collateral Circulation in Chronically Instrumented Dogs. A26
J. C. Hartman, M. H. Al-Wathiqui, J. P. Kampine, G. J. Gross, W. T. Schmeling, and D. C. Warltier
- The Effect of Halothane on Human Coronary Artery Rings Vasomotion. A27
E. Villeneuve, G. A. Blaise, D. Girard, J. Maucotel, and J. Buluran
- Effect of Volatile Anesthetic Agents on the Coronary Circulation of the Isolated Heart. A28
G. A. Blaise, C. Hollmann, D. Girard, and R. Meloche
- Post-Systolic Shortening: A Sensitive Index of Myocardial Ischemia During Halothane Anesthesia. A29
B. J. Leone, R. M. Norris, A. Safwat, and P. Foëx
- Protective Effect of Halothane Against Hypoxic Injury in the Isolated Guinea Pig Heart. A30
J. Marijic, Z. J. Bosnjak, and J. P. Kampine
- Volatile Anesthetics Improve Functional Recovery of "Stunned" Myocardium in Chronically Instrumented Dogs. A31
D. C. Warltier, J. P. Kampine, M. H. Al-Wathiqui, and W. T. Schmeling

Hemodynamic Control Suppresses Myocardial Ischemia During Isoflurane or Sufentanil Anesthesia for CABG.	A32
<i>P. Goehner, M. Hollenberg, J. Leung, W. Browner, B. Cason, and D. T. Mangano</i>	
CIRCULATION IV	
Influence of Converting Enzyme Inhibition on Isoflurane-Induced Hypotension for Cerebral Aneurysm Surgery.	A33
<i>J. Vann Aken, E. Lacroix, A. de Somer, L. Calliauw, and G. Rolly</i>	
Effects of Fenoldopam on Renal Blood Flow and Systemic Hemodynamics During Isoflurane Anesthesia in Dogs.	A34
<i>S. Aronson, S. Roth, D. Glock, L. Goldberg, J. Moss, and M. F. Roizen</i>	
Comparative Hemodynamic and Oxygen Transport Studies During Induced Hypotension with ATP, Adenosine, Nitroprusside, and Halothane.	A35
<i>A. F. Fukunaga, H. Ito, K. Murata, S. S. Sasaki, and P. J. Morgan</i>	
Esmolol Infusion During Nitroprusside-Induced Hypotension: Impact on the Cardiovascular, Renin-Angiotensin and Sympathetic Systems.	A36
<i>R. H. Edmondson, O. E. Delvalle, N. Shah, C. R. Coffey, D. Dwyer, D. Matarazzo, A. Thorne, P. Sogani, H. Herr, and G. Wong</i>	
Systemic Hemodynamic Effects of Deliberate Hypotension with Nicardipine or Sodium Nitroprusside During Total Hip Arthroplasty.	A37
<i>M. Pinaud, M. Babin, J. M. Bernard, D. Chedorge, and J. Letenneur</i>	
Is Intravenous Nifedipine a Safe and Effective Treatment for Hypertension Following Coronary Artery Surgery? A Comparison with Sodium Nitroprusside.	A38
<i>H. Nathan, M. Harrison, L. Dubé, J. Sweet, C. Foster, M. Bourke, C. Cattran, G. de la Salle, and J. Robblee</i>	
Nicardipine Versus Placebo for the Treatment of Postoperative Hypertension.	A39
<i>M. E. Goldberg, J. L. Seltzer, N. Halpern, J. Goldberg, J. Floyd, G. Gabrielson, C. Neely, J. Orlowski, R. Hartz, R. Gray, J. Morganroth, and D. Maguire</i>	
Effects of Nitroglycerin on Systolic and Diastolic Bypass Graft Flow in Humans: Importance of a Maintained Coronary Driving Pressure.	A40
<i>S. Beloucif, D. Bousseau, D. Payen, and F. Laborde</i>	
Comparison of the Effect of Nitroglycerin and Esmolol on the Cardiovascular Response to ECT.	A41
<i>M. Klein, D. Martin, P. Soloff, R. S. Dealy, and M. Ghignone</i>	
Administration of Labetalol to Dogs Anesthetized with Isoflurane Severely Depresses Left Ventricular Contractility.	A42
<i>P. Fyman, G. Loren, R. Fine, K. Lipsitz, L. Kushins, C. Fermon, S. B. Wollman, and R. Abramowitz</i>	

Does Intermediate Dose Labetalol Block the Heart Rate and Blood Pressure Responses to Laryngoscopy and Intubation? A Placebo Controlled Study.	A43
<i>K. S. Chung, R. S. Sinatra, D. M. Harrison, and J. H. Chung</i>	
Epidural Morphine Decreases Postoperative Hypertension by Attenuating Sympathetic Nervous System Hyperactivity.	A44
<i>M. J. Breslow, D. A. Jordan, R. Christopherson, B. Rosenfeld, C. F. Miller, D. F. Hanley, C. Beattie, R. J. Traystman, and M. C. Rogers</i>	
CIRCULATION V	
Effect of Cardiac Tamponade on Left Ventricular Contractility.	A45
<i>W. E. Johnston, J. Vinten-Johansen, H. S. Klopfenstein, W. P. Santamore, and W. C. Little</i>	
Regional Differences in Left Ventricular Wall Motion.	A46
<i>J. Diederichs, B. J. Leone, and P. Foëx</i>	
Cerebral Hypoxia During Ventricular Dysrhythmias.	A47
<i>R. H. Boretsky and W. J. Levy</i>	
Unstable Angina—Are Preoperative Ischemic Phenomena Predictive for the Intraoperative Course?	A48
<i>H. Metzler, P. Rehak, H. Gombotz, and W. F. List</i>	
Perioperative Myocardial Ischemia in the Noncardiac Surgical Patient.	A49
<i>G. Fegert, M. Hollenberg, W. Browner, Y. Wellington, L. Levenson, M. Franks, D. Harris, and D. Mangano</i>	
Perioperative Ischemia: Should We Be Less Tolerant of Tachycardia?	A50
<i>F. M. Clements, S. Kok, E. de Kok, and R. McCann</i>	
Effects of Bupivacaine on the Contractility and Excitability of Ventricular Myocardium.	A51
<i>H. Komai, G. P. Hafner, and B. F. Rusy</i>	
Silent Myocardial Ischemia in CABG Patients: Comparison of Ischemia During Sleep, Following Premedication, and Perioperatively.	A52
<i>N. C. T. Wilton, F. Marcus, L. Michelson, M. Kirsh, and M. Shea</i>	
Change in QT Interval with Anesthesia: Should It Determine Whether to Use A Narcotic or Inhalational Agent?	A53
<i>M. F. Roizen, G. H. Lampe, D. J. Benefiel, Y. J. Sohn, J. S. Smith, R. J. Stoney, W. E. Ehrenfeld, L. M. Reilly, J. Ellis, S. Aronson, E. I. Eger, and R. A. Thisted</i>	
Right Ventricular Function After Cardiac Surgery: The Effect of PaCO_2 .	A54
<i>A. Viitanen, M. Salmenperä, and J. Heinonen</i>	

Hemodynamic and Pharmacological Responses—48 Hrs Post-CABG in Patients with Perioperative Myocardial Infarction.	A55
<i>D. C. H. Cheng, F. Chung, R. J. Burns, A. Chung, and C. M. Feindel</i>	
Prolonged Postoperative Myocardial Ischemia in High-Risk Patients Undergoing Non-Cardiac Surgery.	A56
<i>M. G. Wong, Y. C. Wellington, M. J. London, E. Layug, J. Li, and D. T. Mangano</i>	
CIRCULATION VI	
Anesthetic Interactions of Midazolam and Fentanyl. Is There Acute Tolerance to the Opioid?	A57
<i>I. M. Schwieger, R. I. Hall, and C. C. Hug, Jr.</i>	
Isoflurane or Fentanyl for Patients with Adriamycin-Induced Cardiomyopathy?	A58
<i>A. C. Thorne, N. K. Shah, D. Matarazzo, D. Dwyer, M. K. Pierri, W. J. Hoskins, S. C. Rubin, G. Wong, and R. Bedford</i>	
Comparison of Fentanyl to Thiopental and Propofol for Maintenance of Anesthesia During Cardiac Surgery.	A59
<i>C. T. Mora, C. Dudek, R. Epstein, M. Torjman, and P. F. White</i>	
Elimination of Post Bypass Secondary Peaks of Fentanyl by Pulsatile Cardiopulmonary Bypass.	A60
<i>M. B. Howie, W. Mortimer, J. Philip, D. A. Dumond, and T. D. McSweeney</i>	
The Cardiovascular Effects of Morphine During Hypothermia Are Mediated by a Peripheral Mechanism of Action.	A61
<i>C. Alcaraz, M. M. Puig, M. Bansinath, M. Lovitz, and H. Turndorf</i>	
Return of Cognitive Function After Prolonged Alfentanil Infusion.	A62
<i>T. F. Boerner, M. E. Goldberg, R. R. Bartkowski, C. T. Mora, M. C. Torjman, J. L. Lessin, A. T. Marr, and J. L. Seltzer</i>	
Alterations of Slow Response Action Potentials by Sufentanil.	A63
<i>J. R. Blair, J. K. Pruett, R. P. S. Introna, R. J. Adams, and R. S. Crumrine</i>	
Are Plasma Sufentanil Levels Decreased by Blood Conservation Devices?	A64
<i>J. G. Stone, M. C. Damash, and H. J. Khambatta</i>	
Premedication Profoundly Influences Hemodynamics During Rapid Sequence Induction with Sufentanil-Succinylcholine for Aortocoronary Bypass Grafting.	A65
<i>J. F. Butterworth, IV, V. E. Bean, and R. L. Royster</i>	
Aortic Surgery: Clonidine Prevention of Sympathetic Activation Produces Stable Vasomotor Tone.	A66
<i>L. Quintin, I. Macquin, F. Bonnet, B. Szekely, and M. Ghignone</i>	

Failure of Clonidine to Improve Pre-Bypass Hemodynamics in Patients Undergoing Artery Surgery Performed Under High Dose Alfentanil Anesthesia.	A67
<i>F. Abi-Jaoude, A. Ceddaha, S. Schlumberger, L. Raffin, C. Dubois, and M. Fischler</i>	
Additive Effects of Oral Clonidine and Fentanyl on Isoflurane Induced Hypotension: A Double-Blind Randomized Study.	A68
<i>B. Bourréli, J. M. Bernard, M. Pinaud, T. Lechevalier, and J. V. Bainvel</i>	
CIRCULATION VII	
Changes in Free Intracellular Calcium in Isolated Heart Cells During Exposure to Volatile Anesthetics.	A69
<i>D. M. Wheeler, R. T. Rice, E. G. Lakatta, and R. G. Hansford</i>	
Effects of Magnesium on the Isolated Rat Heart: Interaction with Inhalational Anesthetics.	A70
<i>W. S. Blau, L. S. Carter, F. J. Spielman, R. A. Mueller, B. C. Corke, and E. A. Norfleet</i>	
Halothane Causes Coronary Vasodilation in the Isolated Arrested Perfused Rat Heart.	A71
<i>D. R. Larach, T. M. Sheehan, C. J. Peterson, and H. G. Schuler</i>	
The Mechanical Responses of Resting and Beating Rat Heart Cells to Halothane.	A72
<i>D. M. Wheeler, R. T. Rice, and E. G. Lakatta</i>	
Halothane Selectively Attenuates α_2 -Adrenoceptor Mediated Vasoconstriction in a Rat Hindquarter Model.	A73
<i>G. S. Wickey, D. R. Larach, and H. G. Schuler</i>	
Inotropic Effects of Ketamine on Rat Cardiac Papillary Muscle.	A74
<i>B. Riou, Y. Lecarpentier, P. Barriot, and P. Viars</i>	
Effects of Isoflurane and Halothane on Frequency-Tension and Length-Tension Relationships of the Rat Myocardium.	A75
<i>S. Saeki, S. Shimosato, J. H. Tinker, and F. Kosaka</i>	
<i>In Vitro Comparison of the Myocardial Depressant Effects of Isoflurane and Halothane Anesthesia Under Varying Stimulus Conditions.</i>	A76
<i>M. B. Neal, W. J. Wolf, B. P. Mathew, and D. Bee</i>	
Effects of Isoflurane Versus Halothane on Human Arterial Hepatic Blood Flow (AHBF) and Portal Vein Blood Flow (VBF) After Surgical Stress.	A77
<i>D. Payen, C. Gatecel, P. Dupuy, J. J. Caraco, F. Riche, and P. Vallleur</i>	
Effects of Halothane on Isovolumic Relaxation in Swine.	A78
<i>L. S. Humphrey, D. Stinson, M. Humphrey, J. Ayd, and T. J. J. Blanck</i>	

Induction and Maintenance of General Anesthesia Using Ketamine-Midazolam Continuous Infusion in Cardiac Surgical Patients with Low Ejection Fractions. <i>D. Thangathurai, S. Elder, J. Rodriguez, H. W. Allen, M. Chai, and J. F. Viljoen</i>	A79
Adverse Cardiac Interactions Between Enflurane and Diltiazem. <i>C. B. Hantler, N. Deutch, S. N. Landau, M. Watkins-Pitchford, and P. R. Knight</i>	A80
CIRCULATION VIII	
Does Nitrous Oxide Induced Myocardial Ischemia in Patients with Poor Ventricular Function? <i>M. M. Mitchell, O. Prakash, E. N. R. Rulf, M. Van Daele, and M. K. Cahalan</i>	A81
Should Nitrous Oxide Be Used for Patients with Ischemic Heart Disease? Evidence of Safety from a Laboratory Investigation. <i>H. J. Nathan</i>	A82
Halothane, Enflurane, and Isoflurane Decrease Myofibrillar Calcium Sensitivity in Chemically Skinned Cardiac Fibers. <i>I. Murat, R. Ventura-Clapier, and G. Vassort</i>	A83
Washin and Washout of Three Volatile Anesthetics Concurrently Administered During Cardiopulmonary Bypass. <i>N. A. Nussmeier, N. H. Cohen, G. J. Moskowitz, D. M. Fisher, and E. I. Eger, II</i>	A84
Inhalation Anesthetics and Supraventricular Refractory Periods: Comparison with the Conscious State in Dogs. <i>J. L. Atlee and T. S. Yeager</i>	A85
Inhalation Anesthetics and Sinus Node Function: Comparisons with the Conscious State in Dogs. <i>J. L. Atlee and T. S. Yeager</i>	A86
Prolonged QT Intervals Induced by Enflurane, Isoflurane, and Halothane in Chronically Instrumented Dogs. <i>W. T. Schmeling, D. C. Riley, M. H. Al-Wathiqui, J. P. Kampine, and D. C. Warltier</i>	A87
Differential Effects of Halothane, Enflurane, and Isoflurane on Ca ⁺⁺ Transients and Papillary Muscle Tension in the Guinea Pig. <i>Z. J. Bosnjak, A. Aggarwal, L. A. Turner, and J. P. Kampine</i>	A88
Comparison of Anesthetic Management with Other Variables Determining Outcome After Cardiac Surgery. <i>K. J. Tuman, R. J. McCarthy, B. D. Spiess, and A. D. Ivankovich</i>	A89

Does Low Sedative Doses of Enflurane and Halothane Effect High and Low Pressure Reflex Control of the Circulation in Man?	A90
<i>P. C. Duke and S. Trosky</i>	
High-Dose Thiopental Requirement to Maintain a Nearly Isoelectric EEG During Hypothermic Cardiopulmonary Bypass.	A91
<i>N. A. Nussmeier, N. H. Cohen, and D. R. Stanski</i>	
Influence of Converting Enzyme Inhibition on Isoflurane Hypotension in Dogs.	A92
<i>J. Van Aken, E. Lacroix, I. Leusen, H. Vermeulen, and G. Rolly</i>	
CIRCULATION IX	
Thiopental Sensitizes the Heart to Epinephrine in a Dose-Dependent Manner.	A93
<i>Y. Hayashi, K. Sumikawa, A. Yamatodani, C. Tashiro, and I. Yoshiya</i>	
Effects of Ephedrine and Phenylephrine on Pulmonary Arterial Pressure in Patients with Cervical, Lumbar Epidural, or Enflurane Anesthesia.	A94
<i>S. Dohi, M. Tanaka, and H. Naito</i>	
Vascular Responses to Dopamine and Dobutamine in Calves Implanted with a Total Artificial Heart.	A95
<i>A. S. Greiner, T. M. Sheehan, D. R. Larach, H. G. Schuler, and W. S. Pierce</i>	
A Comparison of Epinephrine and Norepinephrine on Myocardial Oxygen Delivery and Consumption During Cardiopulmonary Resuscitation.	A96
<i>K. H. Lindner, F. W. Ahnefeld, W. Schürmann, E. Pfenninger, and I. Bowdler</i>	
Dissociation Between Coronary Bypass Graft Flow and Regional Myocardial Contraction During Dobutamine After Cardiac Surgery.	A97
<i>M. D. Fratacci, P. Dupuy, R. Froidevaux, F. Laborde, and D. Payen</i>	
Arterial and Venous Responses to Three Catecholamines: Dopamine, Dobutamine, and Epinephrine.	A98
<i>H. Arimura, Z. J. Bosnjak, and J. P. Kampine</i>	
The Effects on Renal Function of Low Dose Dopamine Infusions in Liver Transplant Recipients.	A99
<i>T. H. Swygert, D. Brajtburg, A. W. Paulsen, M. A. Ramsay, and C. W. Whitten</i>	
Direct Effects of Dopamine and Dobutamine on Pulmonary Vascular Tone During Hypoxic, Hyperoxic Lobar Ventilation, and Lobar Collapse in Dogs.	A100
<i>J. P. Gardaz, L. Bindslev, P. McFarlane, and M. K. Sykes</i>	
Hemodynamic Effects of Amrinone for Low Cardiac Output Immediately After Cardiopulmonary Bypass: Effective as a Bolus?	A101
<i>R. F. Grayson and D. A. Kass</i>	

The Use of Amrinone for Inotropic Support During Emergence from Cardiopulmonary Bypass.	A102
<i>K. G. Lathi, M. S. Shulman, J. T. Diehl, and J. J. Stetz</i>	
The Effect of Amrinone on Indices of Left Ventricular Diastolic Function Assessed by Volume (Conductance) Catheter.	A103
<i>R. F. Grayson, P. N. Marino, and D. A. Kass</i>	
Amrinone Inhibits Intracoronary Thrombus Formation and Protects Against Myocardial Ischemia in Dogs.	A104
<i>B. G. Bertha, M. Nugent, and J. C. Sill</i>	
CIRCULATION X	
A Comparison of Epidural <i>Versus</i> General Anesthesia for Elderly Patients Undergoing Peripheral Revascularization.	A105
<i>P. S. Underwood, E. Kepes, and I. Hollinger</i>	
The Hemodynamic Effects of Epidural Anesthesia for Peripheral Vascular Surgery —Systemic Effects of Epidural Epinephrine.	A106
<i>F. C. Salevsky, D. G. Whalley, and G. R. Robbins</i>	
Comparison of Epidural and General Anesthesia for Lower Extremity Vascular Surgery: Preliminary Report.	A107
<i>R. F. Finnegan</i>	
The Magnitude and Duration of Direct Myocardial Depression Following Intracoronary Injection of Local Anesthetics in the Dog.	A108
<i>C. W. Buffington</i>	
Adrenergic and Hemodynamic Response to Flumazenil (RO 15-1788) Reversal of Midazolam Sedation.	A109
<i>J. W. Ritter, W. E. Flacke, E. Norel, H. Gion, R. Chen, and G. Hoshizaki</i>	
Coronary Hemodynamic Responses Following Reversal of Benzodiazepine Induced Sedation with Flumazenil in Patients with Coronary Artery Disease.	A110
<i>J. Marty, A. Nitenberg, I. Philip, J. M. Foult, D. Joyon, F. Sockeel, and J. M. Desmonts</i>	
Smoke Inhalation Injury Causes Myocardial Depression in Sheep.	A111
<i>K. Sugi, J. Newald, L. D. Traber, J. P. Maguire, D. N. Herndon, G. Schlag, and D. L. Traber</i>	
Pulmonary Hemodynamics After One Lung Inhalation Injury in Sheep.	A112
<i>J. L. Theissen, J. P. Maguire, L. D. Traber, T. Prien, H. Linares, D. N. Herndon, and D. L. Traber</i>	

The Effect of Allopurinol on Smoke Inhalation Injury in the Ovine Model.	A113
<i>S. Y. Ahn, R. Mann, J. Basadre, L. D. Traber, D. N. Herndon, and D. L. Traber</i>	
No Intracerebral Steal During Hypercarbic Hypothermic Cardiopulmonary Bypass.	A114
<i>R. C. Roy, G. P. Gravlee, D. A. Stump, D. S. Prough, and J. Phipps</i>	
Nonpulsatile Normothermic Cardiopulmonary Bypass Significantly Reduces Cerebral Metabolism and Cerebral Oxygen Delivery.	A115
<i>J. M. Murkin, J. K. Farrar, W. A. Tweed, and G. M. Guiraudon</i>	
Absence of Cardiovascular Impairment After Massive Paradoxical Air Embolism in Dogs.	A116
<i>J. L. Peters, T. A. Davy, J. K. Hayes, and K. W. Smith</i>	
POSTER SESSION III—CIRCULATION	
Urinary Bladder Distension in Anesthetized Rats: A Source of Cardiac Arrhythmias and Other CV Changes.	A117
<i>J. E. Heavner, M. Allon, and G. B. Racz</i>	
Precipitous Decrease in Leucocyte and Platelet Counts and Prostaglandin Release After Heparin Reversal by Protamine in Humans.	A118
<i>J. Hobbhahn, P. Conzen, H. Habazettl, R. Gutmann, U. Jaenicke, W. Brendel, and K. Peter</i>	
Prevention of Adverse Hemodynamic Side Effects Following Heparin/Protamine by a Thromboxane A ₂ Receptor Antagonist.	A119
<i>P. F. Conzen, H. Habazettl, R. Gutmann, J. Hobbhahn, A. E. Goetz, K. Peter, and W. Brendel</i>	
Alteration of Heparin Response—The Role of Preoperative Heparin and Coumarin Pretreatment for Anticoagulation During Cardiopulmonary Bypass.	A120
<i>W. Dietrich, W. Vogt, G. Blümel, M. Spannagl, W. Schramm, and J. A. Richter</i>	
Adverse Cardiopulmonary Effects and Increased Plasma Thromboxane Levels Following the Neutralization of Heparin with Protamine in Awake Sheep Are Infusion Rate-Dependent.	A121
<i>D. R. Morel, P. M. Mo Costabella, and J. F. Pittet</i>	
Role of Thromboxane A ₂ During Incompatible Homologous and Heterologous Blood Transfusions in Sheep.	A122
<i>D. R. Morel, I. Gysin, J. F. Pittet, and P. M. Mo Costabella</i>	
Ionized Calcium Levels and Calcium Chloride Administration During Weaning from Cardiopulmonary Bypass.	A123
<i>T. E. Stanley, III, T. Green, and M. F. Sweeney</i>	

Hemodynamic and Hormonal Changes Associated with ESWL.	A124
<i>R. Behnia, J. Moss, J. B. Graham, H. W. Linde, and M. Roizen</i>	
Use of Thickening (TF) as an Index of Myocardial Function During the Postoperative Period.	A125
<i>J. E. Chelly, L. J. Suignard, B. S. Patel, C. J. Hartley, J. P. Noon, H. D. Short, R. Bolli, and J. J. Naples</i>	
Effects of Vagal Stimulation in New Zealand White Rabbits on Blood Pressure and Plasma Arginine Vasopressin.	A126
<i>D. Boyer, J. Zhu, B. C. Wang, K. L. Goetz, and E. E. Fibuch</i>	
Pulmonary Vascular Response to Cyclooxygenase Pathway Inhibition Measured in Conscious Dogs Is Modified During Pentobarbital Anesthesia.	A127
<i>D. P. Nyhan, B. B. Chen, D. M. Fehr, H. M. Goll, and P. A. Murray</i>	
Adverse Hemodynamic Effects of Heparin-Protamine: Involvement of Platelets and Leukocytes.	A128
<i>H. Habazettl, P. F. Conzen, R. Gutmann, J. Hobhahn, A. E. Goetz, K. Peter, and W. Brendel</i>	
Effect of Insulin-Induced Hypoglycemia on Cerebral Blood Flow, Metabolism, and Hypoxic Vasodilation in Dogs.	A129
<i>S. A. Derrer, F. E. Sieber, C. D. Saudek, and R. J. Traystman</i>	
Pulmonary Capillary Transit Times of Erythrocytes During Normoxia or Alveolar Hypoxia.	A130
<i>A. E. Goetz, R. Berger, W. Lumper, P. F. Conzen, J. Hobhahn, K. Peter, and W. Brendel</i>	
Prostacyclin Mediates Vasodilation in the Blush Syndrome During Aortic Surgery.	A131
<i>J. C. Hudson, W. H. Wurm, F. R. Kane, Y. F. Su, and W. D. Watkins</i>	
Cutaneous Rhythmic Oscillatory Vasomotion and Anesthesia.	A132
<i>O. B. C. Wilkin and J. K. Wilkin</i>	
Effects of Carbon Dioxide (Hypocapnia and Hypercapnia) on Tissue Blood Flow and Oxygenation of Liver, Kidney, and Skeletal Muscle in the Dog.	A133
<i>K. Okazaki, Y. Okutsu, and A. F. Fukunaga</i>	
Mixed Venous Oximetry Following Cardiac Arrest.	A134
<i>D. Van Riper, J. C. Horrrow, P. Colonna-Romano, and S. Goldman</i>	
Prophylactic Tranexamic Acid Decreases Blood Loss After Extracorporeal Circulation.	A135
<i>W. Collier, J. Hlavacek, J. C. Horrrow, S. Goldman, and I. P. Goel</i>	

Cerebral Blood Flow During Hypothermic Cardiopulmonary Bypass by ^{133}Xe Clearance: A Comparison of Computation Methods.	A136
<i>A. T. Rogers, D. A. Stump, D. S. Prough, L. Hinshelwood, and G. P. Gravlee</i>	
Effect of Isoflurane Anesthesia on Alpha-1-Adrenergic Responsiveness in Patients Undergoing Coronary Artery Bypass Graft Surgery.	A137
<i>D. A. Schwinn, R. W. McIntyre, and J. G. Reves</i>	
Effects of Isoflurane MAC Factors on Brain Microcirculation.	A138
<i>G. P. Lu, J. A. Gibson, Jr., E. A. M. Frost, and P. L. Goldiner</i>	
Hypoxic Pulmonary Vasoconstriction Inhibited by Lung Manipulation in Rabbits.	A139
<i>Y. Ishibe, C. Marshall, and B. E. Marshall</i>	
Variable Effects of Lidocaine, Mepivacaine, and Bupivacaine on Neurovascular Transmission.	A140
<i>S. H. Nelson and O. S. Steinsland</i>	
Comparison of Bretylium and Lidocaine for the Prevention of Ventricular Fibrillation After Aortic Crossclamp Release During Coronary Artery Bypass Surgery.	A141
<i>J. Kirlangitis, R. Middaugh, R. Knight, W. Goglin, and R. Helsel</i>	
Veno-arterial Carbon Dioxide Tension Difference: Correlation with Hemodynamics in Critically Ill Patients.	A142
<i>E. Benjamin, T. J. Iberti, C. E. Lieber, P. J. Papadakos, D. Onofrey, B. Lipper, D. R. Gentili, and J. A. Kaplan</i>	
Myocardial Oxygen Consumption Can Be Estimated During Anesthesia.	A143
<i>G. A. Cooke</i>	
Fiberoptic Technique Does Not Diminish Pressor Response to Intubation.	A144
<i>J. M. Saddler, S. R. Finfer, S. I. P. MacKenzie, and T. G. L. Watkins</i>	
The Effect of the Intra-aortic Balloon Pump on Hemodynamics During Cardiac Arrest.	A145
<i>L. S. Shepard, C. L. Emerman, A. C. Pinchak, J. F. Hagen, and D. Hancock</i>	
Anesthesia in Patients with Wolff-Parkinson-White Syndrome.	A146
<i>M. R. Rose and G. Koski</i>	

CRITICAL CARE I

Incidence of Clonidine Oral Premedication and Postoperative IV Infusion on Hemodynamic and Adrenergic Responses During Recovery from Anesthesia.	A147
<i>J. M. Bernard, B. Bourréli, M. Pinaud, C. Landault, and J. V. Bainvel</i>	

Clonidine Decreases the Sympathetic Hyperactivity Occurring After Head Injury. <i>P. Plaisance, L. Quintin, and D. Payen</i>	A148
Clonidine Pretreatment Fails to Improve Postoperative Course of Coronary Artery Surgery After High Dose Alfentanil Anesthesia. <i>A. Brusset, C. Dubois, F. Abi-Jaoude, M. Fischler, and D. Guilmet</i>	A149
Intravenous Captopril for Control of Hypertension Following Coronary Artery Bypass Surgery. <i>C. B. Patel, B. Venus, M. Mathru, and S. Sarotham</i>	A150
Labetalol for the Control of Elevated Blood Pressure Following Coronary Bypass Grafting. <i>R. Sladen, K. Klamerus, H. Mann, D. Prough, and M. Swafford</i>	A151
Intravenous Labetalol for Treatment of Postoperative Hypertension: Effects on Hemodynamics and Left Ventricular Function. <i>F. Le Bret, P. Coriat, S. Turki, M. Samama, J. F. Baron, G. Godet, and P. Viars</i>	A152
The Rate of Reduction of Arterial Blood Pressure Modifies the Hemodynamic Response to Nitroprusside. <i>N. R. Fahmy</i>	A153
Vasodilators and the Longitudinal Distribution of Pulmonary Vascular Resistance. <i>R. G. Pearl, L. C. Siegel, and E. R. Baer</i>	A154
Hemodynamic Effects of Zinc in Anesthetized Dogs. <i>P. Scipione, S. R. Hameroff, S. R. Alpha, K. C. Ehlers, and R. C. Cork</i>	A155
Mannitol-Induced Hemodynamic Changes and Their Effects on Intracranial Hypertension. <i>M. N. Abou-Madi, D. Trop, and R. Leblanc</i>	A156
Changes in Lipopolysaccharide Concentrations in Hepatic Portal and Systemic Arterial Plasma During Intestinal Ischemia in Monkeys. <i>P. Gathiram, M. T. Wells, D. Raidoo, J. G. Brock-Utne, and S. L. Gaffin</i>	A157
Monitoring of Blood Flow Supplying Ileocolic Esophagoplasty Is an Early Predictor of Postoperative Local Ischemic Complications. <i>O. Rabary, L. Jacob, S. Boudaoud, D. Payen, D. Gossot, E. Sarfati, and E. Eurin</i>	A158

CRITICAL CARE II

The Efficacy of High Frequency Ventilation in Cardiac Tamponade. <i>K. Goto, H. Goto, K. T. Benson, G. K. Unruh, and K. Arakawa</i>	A159
--	------

High Frequency Ventilation, Superimposed to a Conventional Volume-Cycled Ventilation, Decreases Elevated Intracranial Pressure.	A160
<i>A. Aloy, M. Zimpfer, K. Czech, B. Plainer, and C. K. Spiss</i>	
Evaluation of Ventricular External Constraint by the Pericardium and Lung with Positive End-Expiratory Pressure.	A161
<i>M. Takata, W. Mitzner, and J. L. Robotham</i>	
Does "Sigh Breath" Improve Oxygenation in the Intubated Patient Receiving CPAP?	A162
<i>R. D. Bruce, M. C. Stock, E. Taras, and S. Hancock</i>	
Positive End-Expiratory Pressure Worsens the Severity of Right Ventricular Ischemia.	A163
<i>W. E. Johnston, J. Vinten-Johansen, W. P. Santamore, R. A. Strickland, and A. Patel</i>	
Effect of Positive End-Expiratory Pressure on Left Ventricular Contractility.	A164
<i>W. E. Johnston, J. Vinten-Johansen, R. A. Strickland, W. P. Santamore, and W. C. Little</i>	
Diaphragmatic Performance During Weaning from Mechanical Ventilation in Six Patients with Neuromuscular Disease.	A165
<i>C. Borel, C. Peterson, M. Diringer, D. Nichols, M. C. Rogers, and D. Hanley</i>	
Variability of Calculated Shunt Values in Stable, Intubated Postoperative Patients.	A166
<i>P. E. Scuderi, D. S. Prough, T. Sherrill, and J. Kiger</i>	
Comparison of a Hygroscopic Condenser Humidifier with a Cascade Humidifier in Mechanically Ventilated Patients.	A167
<i>J. K. Stene, L. G. McLaughlin, M. D. McCauley, and B. Burns</i>	
Characterization of Hypoxic Pulmonary Vasoconstriction Response Following Oleic Acid.	A168
<i>W. E. Johnston, J. Vinten-Johansen, A. Patel, and E. Tommasi</i>	
Discrepancy Between Measured and Calculated Oxygen Consumption in Critically Ill Patients.	A169
<i>L. D. Robbins, J. A. Dawson, J. Steingrub, and D. Teres</i>	
Pulmonary Injury in the Pig Lung Perfused with Cardiogenic Shock Blood.	A170
<i>T. J. K. Toung, M. Sendak, R. Grayson, B. Rosenfeld, J. Porta, M. Susman, G. Bulkley, and R. J. Traystman</i>	
CRITICAL CARE III	
Controversies Associated with Autotransfusion During Hepatic Transplantation.	A171
<i>D. Brajbord, A. W. Paulsen, M. A. Ramsay, T. H. Swygert, and T. R. Valek</i>	

Hemodynamic Changes in Liver Transplant Recipients During Reperfusion of the Homograft.	A172
<i>J. A. Estrin, K. G. Belani, N. L. Ascher, W. Payne, and J. S. Najarian</i>	
Intraoperative Indicators of Acute Liver Failure Following Transplantation.	A173
<i>A. W. Paulsen, D. Brajbord, M. A. Ramsay, T. R. Valek, and T. H. Swygert</i>	
Total Body Oxygen Consumption Is an Early Predictor of Hepatic Function Following Orthotopic Liver Transplantation.	A174
<i>H. Steltzer, M. Hiesmayr, W. Mauritz, E. Zadrobilek, and P. Sporn</i>	
Bedside Arterial Hepatic Blood Flow (AHBF) and Portal Vein Blood Flow (PVBF) of Human Liver Transplant: Impact of Abdomen Closure and Evolution Over the 6 Postoperative Days.	A175
<i>C. Gatecel, P. Dupuy, M. D. Fratacci, Y. Ozier, D. Payen, D. Houssin, and Y. Chapuis</i>	
The Varied Responses of Critical Care Patients to Intubation.	A176
<i>G. B. Russell, C. E. Enarson, K. M. High, W. A. Kofke, and M. T. Snider</i>	
Fiberoptic Glottic Examination to Promote Safe Prolonged Tracheal Intubation.	A177
<i>D. L. Lefebvre and M. C. Stock</i>	
Noninvasive Determination of Tracheal Tube Position in Infants and Children.	A178
<i>M. S. Zwass, M. S. Schreiner, and R. C. Raphaely</i>	
Prevention of Arterial Oxygen Desaturation Induced by Endotracheal Suctioning Using Constant Flow Insufflation.	A179
<i>G. Mion, L. Brochard, J. Mancebo, G. Boussignac, D. Isabey, A. Harf, and F. Lemaire</i>	
Continuous Epidural Analgesia with Fentanyl in Trauma Patients.	A180
<i>D. L. Downs and J. H. Eisele, Jr.</i>	
Thoracic Epidural Anesthesia Associated with Light General Anesthesia in High-Risk Surgical Patients: Effects on Left Ventricular Function.	A181
<i>B. Gentil, J. F. Baron, P. Coriat, W. Benhalima, M. Arthaud, and P. Viars</i>	
Regulation of Protein and Amino Acid Catabolism by Insulin in Septic or Severely Burned Patients.	A182
<i>R. E. Shangraw, F. Jahoor, H. Miyoshi, W. A. Neff, C. A. Stuart, and R. R. Wolfe</i>	

CRITICAL CARE IV

The Decision to Dialyze Critically Ill Patients: Prognosis, Survival, and Quality of Life.	A183
<i>S. L. Dain, C. Shnier, D. Forbes, S. Nocent, and R. J. Byrick</i>	

Antidiuresis During PEEP Is Not Mediated by an Inhibition of Atrial Natriuretic Factor Release.	A184
<i>M. D. Fratacci, E. Greck, R. Froidevaux, C. Bellec, P. Dupuy, J. Eurin, and D. Payen</i>	
Is Atrial Natriuretic Factor Released in Response to Aortic Crossclamping?	A185
<i>G. Godet, S. Mouren, P. Coriat, G. Mestre, and P. Viars</i>	
Alterations in Hemostatic Parameters in Craniotomy Patients: Lack of Relationship to ADH Levels.	A186
<i>T. J. Iberti, J. Rand, J. Grabel, D. Delarosa, C. Wu, and E. Benjamin</i>	
Cardiovascular, Pulmonary, and Renal Effects of Massively Increased Intra-abdominal Pressure in Critically Ill Patients.	A187
<i>D. J. Cullen, J. P. Coyle, R. Teplick, and M. C. Long</i>	
The Hemodynamic Sequelae of Intravenous Cimetidine Versus Ranitidine in ICU Patients: A Double-Blind, Prospective Crossover Study.	A188
<i>D. B. Coursin, C. Farin-Rusk, S. R. Springman, and S. L. Goelzer</i>	
Calcium Administration Attenuates the Hypertensive Response to Phenylephrine in Humans Following Open Heart Surgery.	A189
<i>R. A. Strickland, L. J. Mark, J. F. Butterworth, IV, and G. P. Zaloga</i>	
An Evaluation of Two Mixed Venous Saturation Catheters in Patients with Circulatory Shock and Respiratory Failure.	A190
<i>L. Bodin, J. J. Rouby, P. Mezzaroba, S. Ourhama, M. Arthaud, R. Guesde, and P. Viars</i>	
Acute Heart Failure Decreases Intrapulmonary Shunt.	A191
<i>M. C. Stock, D. W. Davis, and M. Ryan</i>	
Relationship Between Adrenal Catecholamine Secretion and Medullary Blood Flow.	A192
<i>M. J. Breslow and R. J. Traystman</i>	
Clinical Examination Does Not Predict Cardiac Output After Cardiac Surgery.	A193
<i>J. M. Bailey, J. H. Levy, M. A. Kopel, and V. Tobia</i>	
Fibronectin Levels and Positive HTLV III in Patients Undergoing Valve Replacement.	A194
<i>P. A. Casthely, T. Yoganathan, M. Salem, B. Karayanis, and R. Mayer</i>	

POSTER SESSION VII—CRITICAL CARE

Work of Breathing and Response Times During SIMV and Pressure Support. Ventilation by a Modified Pediatric Volume Ventilation.	A195
<i>L. D. Martin, J. F. Rafferty, R. C. Wetzel, and F. R. Gioia</i>	

Decreased Mesenteric Blood Flow Supplying Retrosternal Esophageal Ileocoloplasty During Positive Pressure-Breathing (PPB).	A196
<i>L. Jacob, O. Rabary, S. Boudaoud, D. Payen, D. Gossot, E. Sarfati, and B. Eurin</i>	
Biphasic Pathogenesis of Acute Acid Aspiration Pneumonitis.	A197
<i>T. P. Kennedy, K. J. Johnson, P. A. Ward, P. R. Knight, and J. S. Finch</i>	
Postoperative Nosocomial Pneumonia Is Frequently Polymicrobial: An Histologic and Bacteriologic Study.	A198
<i>C. Royer, J. J. Rouby, P. Poete, M. H. Nicholas, E. M. de Lassale, and P. Viars</i>	
Is Inflammatory Process Responsible for the Early Development of Bronchopulmonary Dysplasia (BPD) in Premature Infants: Biochemical, Cytological, and Physiological Studies.	A199
<i>E. K. Motoyama, B. Brozanski, E. Mallick, R. Mutich, and R. W. Evans</i>	
Does Prostaglandin E1 Modify the Functional Activity of Polymorphonuclear Leukocytes in Patients with Adult Respiratory Distress Syndrome?	A200
<i>M. D. Rossignon, C. Royer, D. Khayat, J. J. Rouby, Cl. Jacquillat, and P. Viars</i>	
The Effects of Pentoxifylline on Endotoxin-Induced Lung Injury.	A201
<i>M. J. Sendak, T. J. K. Toung, B. A. Rosenfeld, G. Bulkley, and R. J. Traystman</i>	
Influence of Aspirin and Methyl Prednisolone on Acute Lung Injury Caused by Intravenous Injection of the Sclerosing Agent Ethanolamine Oleate.	A202
<i>G. H. Sigurdsson, S. Vallgren, and J. T. Christenson</i>	
N-Acetylcysteine in the Prevention of the Adult Respiratory Syndrome. An Experimental Study in Pigs.	A203
<i>J. Modig and R. Sandin</i>	
Halothane Alters the Relationship Between Total Body Oxygen Delivery and Consumption Compared to That Measured in Conscious Dogs.	A204
<i>P. Rock, C. Beattie, B. B. Chen, D. M. Fehr, H. M. Goll, D. P. Nyhan, S. Parker, and P. A. Murray</i>	
Effects of Phorbol Myristate Acetate on the Longitudinal Distribution of Pulmonary Vascular Resistance in Sheep.	A205
<i>E. R. Baer, R. G. Pearl, and L. C. Siegel</i>	
Tolerance to Bacterial Bolus Induced by Chronic Low Dose Bacteremia in Sheep.	A206
<i>D. J. Dehring, J. A. Coffey, S. Doty, L. D. Traber, D. L. Traber, and J. F. Arens</i>	
Endotoxin and Group B Streptococcus Increase Thromboxane A ₂ Synthesis in Vascular Endothelium.	A207
<i>M. M. Tarpey, M. K. Cunningham, and S. M. Connelly</i>	

Pentastarch (Low Molecular Weight Hydroxyethyl Starch): Efficacy and Clinical Safety as a Cardiopulmonary Bypass Priming Solution.	A208
<i>M. J. London, M. E. Franks, S. H. Merrick, E. D. Verrier, and D. T. Mangano</i>	
The Effect of Duodenojejunal Feeding on Gastric pH in Postoperative ICU Patients.	A209
<i>A. J. Layon, O. Florete, and A. L. Day</i>	
Release of Leukotrienes and Prostaglandins During Acute Pancreatitis in Pigs.	A210
<i>B. Vollmar, H. Waldner, J. Schmand, P. F. Conzen, A. E. Goetz, L. Schweiberer, and W. Brendel</i>	
Reflex Sympathetic Activation Provoked by Dihydroperidine Calcium Channel Blockers Exists During Fentanyl-Benzodiazepine-N ₂ O Anesthesia.	A211
<i>P. Coriat, J. Braz, S. Cheour, G. Godet, M. Samama, C. Landault, and P. Viars</i>	
Postoperative Internal Mammary Artery Graft Flow Evolution Over 6 Days Compared to Saphenous Vein Graft Flow.	A212
<i>P. Dupuy, M. D. Fratacci, E. Grech, S. Beloucif, F. Laborde, and D. Payen</i>	
Comparison of Sufentanil-N ₂ O Versus Fentanyl-N ₂ O in Patients Undergoing General Surgery: A Blind Study.	A213
<i>S. Cheour, P. Coriat, A. Bensouda, M. Bertrand, J. C. Levron, and P. Viars</i>	
Hemostasis Modifications Observed in Thoraco-abdominal Aneurysm Surgery.	A214
<i>Ch. M. Samama, A. Ankri, G. Godet, L. S. Montejo, S. Mouren, W. Benhalima, T. Cherrak, E. Kieffer, and P. Viars</i>	
The Effect of Superoxide Dismutase and Catalase on Focal Cerebral Ischemia.	A215
<i>S. L. Lindsay, J. S. Beckman, T. H. Liu, C. Y. Hsu, and B. A. Freeman</i>	
Effects of Hyperoxemia on Myocardial Blood Flow and Oxygen Consumption in an Isolated Rabbit Heart.	A216
<i>J. F. Baron, E. Vicaut, X. Hou, and P. Viars</i>	
Phasic Variation in Pulmonary Capillary Pressure Measured by Time-Controlled Arterial Occlusion.	A217
<i>M. Suzukawa, Y. Yamada, M. Chinzei, N. Kawahara, and T. Chinzei</i>	
Urine Sodium Excretion Separates Hypovolemic from Normovolemic (Hormonal Excess) Oliguria.	A218
<i>G. P. Zaloga and S. S. Hughes</i>	
Endotoxemia Causes a Naloxone-Reversible Decrease in the Alveolar Concentration of Isoflurane Required for Anesthesia.	A219
<i>S. Huie, G. Gilliland, R. Munford, J. M. Lipton, and A. H. Giesecke, Jr.</i>	

Atrial Natriuretic Factor Concentration Increases After Removal of Continuous Positive Airway Pressure.

A220

P. R. Mitchell, N. L. M. Wong, P. M. Dodek, and J. A. Russell

EQUIPMENT, MONITORING, AND ENGINEERING TECHNOLOGY I

Lower Esophageal Contractility Does Not Predict Movement During Skin Incision in Patients Anesthetized with Alfentanil and Nitrous Oxide.

A221

R. Stoen and D. I. Sessler

Is Lower Esophageal Contractility a Reliable Indicator of the Adequacy of Opioid Anesthesia?

A222

I. M. Schwieger, R. I. Hall, and C. C. Hug, Jr.

ECG Artifacts During Extracorporeal Shock Wave Lithotripsy.

A223

G. W. Rung, A. D. Oakley, J. M. Gibson, and N. M. Gibbs

Tracheal ECG Monitoring Versus Surface and Esophageal ECG Monitoring.

A224

J. K. Hayes, J. L. Peters, K. W. Smith, and T. A. Davy

Infrared-Paramagnetic Versus Mass Spectrometer Measurement of Anesthetic and Respiratory Gas Values.

A225

G. T. Schulte and F. E. Block, Jr.

Computer Correction for Poor High Frequency Performance of a Central Mass Spectrometer System.

A226

F. L. Scamman and R. S. Laura

A Technique for Automatic Calibration of Medical Mass Spectrometers.

A227

G. C. Carlon, I. C. Kopec, S. Miodownik, and C. Ray, Jr.

Multiplexed Mass Spectrometry for Small Animal Research.

A228

D. R. Larach, H. G. Schuler, and T. M. Skeehan

EQUIPMENT, MONITORING, AND ENGINEERING TECHNOLOGY II

Dynamic Response: The Key to Obtaining Quality Information Using Pulmonary Artery Catheters.

A229

P. Hunziker

Range of Pulmonary Artery Balloon Inflation Pressures.

A230

C. G. Durbin, Jr. and R. A. Johns

Where Antecubital CVP Catheters Go: A Study Under Fluoroscopic Control.

A231

J. Ragasa, N. Shah, R. Watson, and R. Bedford

Pulmonary Artery Versus Central Venous Pressure Monitoring in Patients Undergoing Abdominal Aortic Reconstructive Surgery.	A232
<i>I. J. Isaacson, A. J. Berry, G. Knos, F. I. Weitz, and K. Ryan</i>	
A Double Lumen Transthoracic Pulmonary Artery Catheter for Measurement of Cardiac Output in Infants and Neonates.	A233
<i>D. L. Wessel, E. M. Elixson, D. D. Hansen, and P. R. Hickey</i>	
Heavy Water Evaluated for Dye-Dilution Cardiac Output Measurements.	A234
<i>M. S. Schreiner, G. R. Neufeld, L. G. Leksell, and A. Sylvestro</i>	
Noninvasive Cardiac Output: Effect of Heart Rate and Rhythm on Measurement.	A235
<i>P. M. Weidoff, D. H. Wong, K. K. Tremper, and J. Zaccari</i>	
Continuous, Noninvasive Cardiac Output Monitoring by Electrical Bioimpedance and Transesophageal Continuous-Wave Doppler Ultrasound.	A236
<i>D. R. Spahn, E. R. Schmid, M. Tornic, R. Jenni, and A. Baetscher</i>	
Noninvasive Beat-by-Beat Stroke Volume Determination from ECG Morphology Changes.	A237
<i>A. M. Mantia, J. R. Robinson, H. Kunig, and E. H. Stullken, Jr.</i>	
Transtracheal Doppler: A New Method of Continuous Cardiac Output in Humans.	A238
<i>J. H. Abrams, K. D. Holmen, and R. E. Weber</i>	
Can the K-Factor Be a Source of Inaccuracy in the Determination of Esophageal Doppler Cardiac Output?	A239
<i>D. M. Thys and Z. Hillel</i>	
Wall Thickening Probes for Assessment of Myocardial Function in Cardiac Surgery.	A240
<i>J. E. Chelly, C. J. Hartley, L. J. Suignard, B. S. Patel, G. P. Noon, H. D. Short, and R. Bolli</i>	

EQUIPMENT, MONITORING, AND ENGINEERING TECHNOLOGY III

An Approach to "Smart Alarms" in Anesthesia Monitoring.	A241
<i>R. C. Watt, K. E. Miller, M. J. Navabi, S. R. Hameroff, and K. C. Mylrea</i>	
The Medical Information Bus: A Proposed Standard for Medical Device Interconnection.	A242
<i>S. W. Stead and M. M. Shabot</i>	
Alfentanil Pharmacokinetic Model Applied to Ambulatory Surgical Patients: Does a Computerized Infusion Improve Predictability?	A243
<i>D. B. Raemer, A. Buschman, M. D. Johnson, B. K. Philip, S. L. Shaffer, and D. R. Stanski</i>	

Computer Model to Predict Flow and Time Delay for CSF Detection in Spinal Needles.	A244
<i>D. Kaczorowski, M. Juneja, and W. Ackerman</i>	
Computer-Assisted Analysis of the EEG During Normal Pregnancy.	A245
<i>J. Adenwala, D. Younker, J. Huesemann, B. Skjonsby, M. Kubicek, and T. H. Joyce, III</i>	
A Computerized Patient Advice System for the Management of Adult Respiratory Distress Syndrome.	A246
<i>D. F. Sittig, R. M. Gardner, N. L. Pace, E. Beck, and A. H. Morris</i>	
Requirements for Unattended Monitor Are Met by Automated Doppler Monitor for Venous Air Embolism.	A247
<i>G. L. Gibby</i>	
Synchronized High Frequency Jet Ventilation During Extracorporeal Shock Wave Lithotripsy.	A248
<i>K. Warlick, R. C. Cork, K. Brock, K. Springmann, and K. Mylrea</i>	
Effect of High Frequency Jet Ventilation on Cardiopulmonary Variables After Heart-Lung Bypass.	A249
<i>R. C. Cork, J. A. Gallo, Jr., M. J. Vonesh, and K. Warlick</i>	
Pulmonary Effects Related to Airway Obstruction During High Frequency Jet Ventilation for Laryngoscopy.	A250
<i>E. Desruennes, J. L. Bourgain, M. F. Cosset, K. McGee, and J. Truffa-Bachi</i>	
A Comparison of Special Endotracheal Tubes for Use with the CO ₂ Laser.	A251
<i>M. B. Sosis and S. Heller</i>	
An Evaluation of Five Metallic Tapes for Protection of Endotracheal Tubes During CO ₂ Laser Surgery.	A252
<i>M. B. Sosis and S. Heller</i>	

EQUIPMENT, MONITORING, AND ENGINEERING TECHNOLOGY IV

A Micro-Intravascular Probe for Blood Gas Sampling.	A253
<i>B. Goodwin, E. J. Jumeau, T. R. Clapham, and F. Harris</i>	
In Vivo Evaluation of a Micro-Intravascular Blood Gas Probe.	A254
<i>R. T. Chilcoat, B. Goodwin, E. J. Jumeau, T. R. Clapham, and F. Harris</i>	
In Vivo Accuracy of a Two-Wavelength Mixed Venous Saturation Catheter in Humans.	A255
<i>K. L. Speight, P. E. Scuderi, D. S. Prough, and T. Sherrill</i>	

Clinical Assessment of a New Blood Gas and Chemistry Monitor for Use During Cardiac Surgery.	A256
<i>W. K. Greydanus, G. Bashein, and M. A. Kenny</i>	
Rapid Bedside Analysis of Arterial Blood Gases and Electrolytes Improves Patient Care During and After Cardiac Surgery.	A257
<i>R. A. Strickland, T. R. Hill, and G. P. Zaloga</i>	
Diffuse Intravascular Coagulation and Primary Fibrinolysis Differentiated by Thromboelastography.	A258
<i>B. D. Spiess, R. J. McCarthy, K. J. Tuman, K. Tool, and A. D. Ivankovich</i>	
Comparison of Viscoelastic Measures of Coagulation Following Cardiopulmonary Bypass.	A259
<i>K. J. Tuman, R. J. McCarthy, B. D. Spiess, and A. D. Ivankovich</i>	
Activated Clotting Time Measurements: How Much Waste Should Be Drawn from a Continuously Flushed-Heparinized Line to Insure Accurate Results?	A260
<i>L. D. Wade, H. W. Weiss, W. J. McCune, S. J. Greene, and P. R. Lichtenthal</i>	
ACT: A New Approach.	A261
<i>M. K. Urban and R. L. Hines</i>	
On-Line Detection of Perioperative Myocardial Ischemia with a 12-Lead Ischemia Monitor: A Simple, Sensitive, and Useful Clinical Tool.	A262
<i>T. Gasior, M. Klein, M. Ghignone, and C. Schertz</i>	
Intraoperative Transesophageal 2-D Echocardiography and Doppler Color Flow Mapping for Evaluation of Mitral Valvuloplasty.	A263
<i>P. E. Curling, D. J. Schultz, J. M. Craver, A. R. Leon, and J. M. Felner</i>	
Volumetric Transesophageal Echocardiography: Comparison of Stroke Volume Measurements to Thermodilution.	A264
<i>G. Bashein and R. W. Martin</i>	
EQUIPMENT, MONITORING, AND ENGINEERING TECHNOLOGY V	
Efficacy of Endotracheal Tube Cuff Palpation and Humidity in Distinguishing Endotracheal from Esophageal Intubation.	A265
<i>J. H. Gillespie, R. G. Knight, R. E. Middaugh, E. J. Menk, and C. L. Baysinger</i>	
Differentiating Esophageal from Tracheal Capnograms.	A266
<i>M. L. Good, J. H. Modell, and W. Rush</i>	

Is Dependent-Lung PETCO ₂ Monitoring a Reliable Method to Assess Pa _{CO₂} During Selective 2-Lung-Ventilation in Patients Undergoing Thoraco-Abdominal Aneurysm Surgery?	A267
<i>G. Godet, M. Bertrand, P. Coriat, W. Benhalima, C. M. Samama, E. Kieffer, and P. Viars</i>	
Reproducibility of End-Tidal CO ₂ Measurements in Sedated Patients Receiving Supplemental O ₂ by Nasal Cannula.	A268
<i>D. L. Louwsma and D. G. Silverman</i>	
Effect of Positive End-Expiratory Pressure on Tidal Volume.	A269
<i>T. J. Mukkada, S. Khathiwada, J. Fernandez, and J. A. Aldrete</i>	
Effects of Varying Ventilatory Fresh Gas Flows on Minute Ventilation in Pediatric Patients Using a Circle System.	A270
<i>R. J. Moynihan and C. J. Cote</i>	
Oxygen Consumption by Anesthesia Ventilators.	A271
<i>K. L. Raessler, W. E. Kretzman, and N. Gravenstein</i>	
Effects of Changes in Lung Model Compliance on Anesthesia Ventilator Performance.	A272
<i>J. M. Feldman, S. Lampotang, M. J. Banner, and N. Gravenstein</i>	
Ventilator Management by Pulse Oximetry and Capnometry After Cardiac Surgery.	A273
<i>K. Sharer and R. Sladen</i>	
Accuracy of Sulfur Hexafluoride Washout FRC Measurements in Patients with Lung Disease.	A274
<i>T. D. East, P. J. M. Wortelboer, L. Peng, N. L. Pace, and R. O. Grapo</i>	
Real-Time Pulmonary Shunt Fraction in Humans.	A275
<i>P. E. Scuderi, T. Sherrill, D. S. Prough, K. L. Speight, and J. Kiger</i>	
A Mechanical Model to Simulate Uptake and Elimination of Inhalation Anesthetics.	A276
<i>P. J. Loughlin, W. A. Bowes, and D. R. Westenskow</i>	
POSTER SESSION IV—EQUIPMENT, MONITORING, AND ENGINEERING TECHNOLOGY	
Cascade of Monitor Detection of Anesthetic Disaster.	A277
<i>R. I. Cook, F. E. Block, and J. S. McDonald</i>	
Airway Heating Does Not Affect Recovery Time or Postoperative Complaints in Outpatients.	A278
<i>T. J. Conahan, III, D. S. Kitz, R. W. Andrews, and J. H. Lecky</i>	

Hemodynamic Predictors of Myocardial Ischemia in Patients Undergoing Aortic Vascular Surgery: At Last We Can Measure Them!	A279
<i>L. S. Montejo, P. Coriat, G. Godet, J. F. Baron, and P. Viars</i>	
The Effect of Arterial Carbon Dioxide Tension on Transcutaneous Oxygen.	A280
<i>S. J. Barker, K. K. Tremper, and J. Hyatt</i>	
Changes in End-Tidal CO ₂ and Arterial Oxygen Saturation with CO ₂ and N ₂ O Venous Gas Emboli in Sheep.	A281
<i>H. de Sousa</i>	
Arterial to End-Tidal Carbon Dioxide Tension Difference During Human Orthotopic Liver Transplantation.	A282
<i>Y. Ozier, L. Eyrolle, C. Mathey, D. Ortega, and Ch. Conseiller</i>	
Anesthetic Considerations for a Microgravity Spacecraft Environment.	A283
<i>D. M. Gaba and M. D. Beck</i>	
Use of a Heat and Moisture Exchanger Partially Improves the Correlation Between Esophageal and Core Temperature.	A284
<i>M. N. Siegel and N. Gravenstein</i>	
“Vaporizer Aberrance” and “Second-Gas Effect”: Which is Clinically Significant?	A285
<i>H. Deriaz, A. Benmamou, and A. Lienhart</i>	
A Comparison of Three Methods of Intraoperative Cerebrospinal Fluid Drainage During Neurosurgical Procedures.	A286
<i>J. E. Fleischer, J. A. Steinkeler, and R. F. Cucchiara</i>	
Laboratory Evaluation of a High Efficiency iv Fluid Warmer.	A287
<i>C. F. Ward and G. T. Ozaki</i>	
Intra-abdominal Pressure Monitoring Using a Urinary Catheter: Validation of the Technique in Humans.	A288
<i>C. E. Lieber, T. J. Iberti, E. Benjamin, D. Onofrey, B. L. Lipper, and P. J. Papadakos</i>	
Malignant Hyperthermia and the Clean Machine.	A289
<i>T. T. McGraw and T. P. Keon</i>	
Accuracy and Efficacy of a Pharmacokinetic Model Driven Device to Infuse Fentanyl for Anesthesia During General Surgery.	A290
<i>P. Glass, J. R. Jacobs, E. D. Hawkins, B. Ginsberg, T. J. Quill, and J. G. Reves</i>	
Solid Waste in Anesthesia.	A291
<i>J. L. Lichor and B. S. Lane</i>	

Monitoring of Tissue Oxygen Tension in Skeletal Muscle of Intensive Care Patients —Effects of Crystalloids and Colloids.	A292
<i>J. Schulte am Esch, E. Kochs, B. Steinberg, and H. Bause</i>	
<i>In Vitro Evaluation of a Compact Metabolic Measurement Instrument.</i>	A293
<i>C. Weissman, A. Sardar, and M. Kemper</i>	
Localized Hypothermia Potentiates Nondepolarizing Neuromuscular Blockade.	A294
<i>C. W. Hanson, M. L. Young, M. J. Bloom, S. Muravchick, and J. Savino</i>	
Vaporizer Aberrance Induced by Nitrous Oxide: Solubility or Viscosity?	A295
<i>H. Deriaz, R. Duranteau, A. Benmamou, A. Chauvin, and A. Lienhart</i>	
It Is Unnecessary to Push Fluids for the Sake of Urine Output During Anesthesia.	A296
<i>L. Priano, E. E. Everts, and J. D. Smith</i>	
Anesthetic Plastic Solubility.	A297
<i>A. G. Targ, N. Yasuda, and E. I. Eger II</i>	
Measurement of Blood Electrolytes—Effect of Needle Size.	A298
<i>A. C. Pinchak, L. S. Shepard, J. F. Hagen, D. E. Hancock, and J. M. Schulz</i>	
Hemodynamic Effects of G-Suit Inflation in Normovolemic Children.	A299
<i>L. Ronchi, D. Rosenbaum, C. Ronchi, B. Branger, and J. L. Lemaitre</i>	
Long-Term Dorsalis Pedis Artery (DPA) Cannulation: A Prospective Study.	A300
<i>C. Martin, D. Ouerghemmi, B. Eon, C. Sureau, and M. Pradal</i>	
Laboratory Performance of Two Commercially Available Infrared Anesthetic Monitors and a Mass Spectrometer.	A301
<i>L. C. Jameson and S. R. Springman</i>	
A Comparison of Two Infrared Gas Monitors and a Multiplexed Mass Spectrometer with a Stand-Alone Mass Spectrometer in Adult Patients.	A302
<i>S. R. Springman and L. C. Jameson</i>	
Ultrasound Examination of the Vocal Cords and Larynx: A Guide to Intubation and a Diagnostic Aid.	A303
<i>H. Carp and A. Bundy</i>	
A Minimal Flow System for Xenon Anesthesia.	A304
<i>H-H. Luttropp, G. Rydgren, R. Thomasson, and O. Werner</i>	
Accuracy of Disposable Versus Reusable Pressure Transducers.	A305
<i>L. T. Hegland and R. M. Meyer</i>	

Left Ventricular Diastolic Filling in Patients Undergoing Coronary Artery Bypass Graft Using Transesophageal Doppler Echocardiography.	A306
<i>H. Kitahata, C. Komer, P. L. Goldiner, E. L. Yellin, and Y. Oka</i>	
POSTER SESSION VIII—EQUIPMENT, MONITORING, AND ENGINEERING TECHNOLOGY	
Tourniquet Induced Reactive Hyperemia May Improve the Technique of Arterial Cannula Insertion.	A307
<i>J. I. Joseph, V. N. Igidbashian, L. Needleman, T. Nack, J. B. Lessin, and J. L. Seltzer</i>	
Noninvasive Ejection Fraction Monitoring: A Comparison of the Impedance Method to the Radionuclide Cardiography.	A308
<i>L. Hanna, V. Lopez-Majano, J. Ward, M. Mathew, and J. A. Aldrete</i>	
Validation of a Right Ventricular Ejection Fraction Catheter Utilizing the Jarvik-7 Artificial Heart.	A309
<i>R. F. Feinstein, R. K. Parker, C. I. Weiss, S. M. Poler, and D. G. Lappas</i>	
Ketamine Enhances Somatosensory Evoked Potentials in Man But Fails to Prevent the Depressant Effect of Nitrous Oxide.	A310
<i>A. Schubert, M. G. Licina, and P. J. Lineberry</i>	
The Differential Effects of Isoflurane/Nitrous Oxide on Posterior Tibial Somatosensory Evoked Responses of Cortical and Subcortical Origin.	A311
<i>D. E. Wolfe and J. C. Drummond</i>	
Median Nerve Somatosensory Evoked Potentials During Anesthesia with Sufentanil or Fentanyl.	A312
<i>P. S. Sebel, N. deBruijn, J. Jacobs, and W. K. Neville</i>	
The Effect of Anesthetic and Sedative Agents on Magnetic Motor Evoked Responses.	A313
<i>H. C. Tung, J. C. Drummond, and R. G. Bickford</i>	
EEG Dimensionality Correlates with Spectral Edge Frequency.	A314
<i>R. C. Watt, T. D. Jolly, S. R. Hameroff, S. R. Alpha, and K. C. Mylrea</i>	
EEG Power Analysis Is Superior to Frequency Analysis for Predicting Adverse Neurologic Outcome After Open Heart Surgery for Narcotic Anesthesia.	A315
<i>W. G. Logas, B. Braverman, J. McCarthy, K. J. Tuman, B. D. Spiess, J. A. Hunter III, M. D. Goldin, and A. D. Ivankovich</i>	
The Normalized Spectral Sum of Squares: A Sensitive Measure of EEG Change.	A316
<i>W. J. Levy and D. S. Smith</i>	

A Comparison of Median Frequency, Spectral Edge, Frequency Band Ratios, Total Power, and Dominance Shifts in the Determination of Depth of Anesthesia.	A317
<i>J. C. Drummond, D. E. Perkins, and D. E. Wolfe</i>	
Pulse Oximetry During Open Heart Surgery: A Note of Caution.	A318
<i>B. M. Weiss, E. R. Schmid, P. Stauss, and R. Huch</i>	
Cardiopulmonary Monitoring Using Dual Oximetry.	A319
<i>J. Räsänen and J. B. Downs</i>	
A Simple Pulse Monitor for Use During Magnetic Resonance Imaging.	A320
<i>G. A. Volgyesi and D. J. Doyle</i>	
Rapid Automatic Noninvasive Blood Pressure Determination by a "Return-to-Flow" Method.	A321
<i>F. E. Block, Jr. and M. V. Fletcher</i>	
Noninvasive Continuous Blood Pressure Monitoring During Sodium Nitroprusside Induced Hypotension.	A322
<i>S. M. Peschel, J. A. Melendez, A. Wald, and C. Weissman</i>	
Evaluation of a Continuous Noninvasive Blood Pressure Monitor During Deliberate Hypotension in Orthopedic Patients.	A323
<i>R. H. Epstein and R. R. Bartkowski</i>	
The Performance of the Finapres Continuous Blood Pressure Monitor During the Peri-induction Period in High Risk Patients.	A324
<i>N. M. Gibbs, D. R. Larach, and J. A. Derr</i>	
Comparison of Two Types of Noninvasive Blood Pressure Monitors.	A325
<i>M. S. Gorback and T. J. Quill</i>	
Feasibility Study for the Development of a New Continuous Blood Pressure Monitor for Pediatric Anesthesia.	A326
<i>G. A. Volgyesi and D. Shulman</i>	
Automatic Control of Arterial Pressure in the Operating Room: Safety During Episodes of Artifact and Hypotension?	A327
<i>M. L. Quinn, N. T. Smith, J. E. Mandel, J. F. Martin, and A. M. Schneider</i>	
Is Systolic Blood Pressure Variation a Sensitive Indicator of Hypovolemia?	A328
<i>K. Shibutani, T. Komatsu, G. Olortegui, M. Sarabu, and V. Sanchala</i>	
What Blood Pressures Will Automatic Recordkeepers Record During Anesthesia?	A329
<i>F. E. Block, Jr.</i>	

A Portable Automated Record Keeping System, Embedding Artificial Intelligence.	A330
<i>R. Duranteau, H. Deriaz, R. Guesde, F. Clergue, A. Lienhart, and P. Viars</i>	
The Accuracy of Voice Recognition in the Operating Room.	A331
<i>R. A. Brien, N. T. Smith, M. L. Quinn, D. C. Pettus, and T. K. Gregory</i>	
Blood Flow Through Two Types of iv Catheters.	A332
<i>J. E. Cooke and R. E. McKlveen</i>	
Systematic Bias in Handwritten Anesthetic Records.	A333
<i>R. I. Cook, J. S. McDonald, and E. Nunziata</i>	
LOCAL ANESTHESIA AND PAIN I	
Plasma and Cerebrospinal (CSF) Fluid Pharmacokinetics Following Intrathecal, Epidural, and Intravenous Clonidine Administration in Sheep.	A334
<i>M. I. Castro and J. C. Eisenach</i>	
Intraneuronal Recordings of Muscle and Skin Sympathetic Activity During Epidural Anesthesia in Man.	A335
<i>S. A. Lundin, M. Elam, and B. G. Wallin</i>	
Naltrexone Reversal of the Side Effects of Epidural Morphine.	A336
<i>M. Cullen, A. H. Altstatt, N. J. Kwon, S. Benzuly, and J. S. Naulty</i>	
Epidural Anesthesia Significantly Reduces Resting Plasma Catecholamine Levels in Awake Dogs.	A337
<i>R. Stevens, A. Schubert, M. Mikat-Stevens, and M. Van Clief</i>	
Optimizing Postoperative Analgesia with a Rapidly Acting Epidural Narcotic: Results of a Prospective Randomized Double Blinded Study.	A338
<i>G. Graf, A. Frasca, R. Sinatra, and D. G. Silverman</i>	
Spinal Sympathetic Blockade Decreases Tolerance to Hemorrhage by Attenuating Compensatory Responses Transmitted Via the Splanchnic Nerve.	A339
<i>D. A. Jordan and E. D. Miller</i>	
Influence of Spinal Needle Tip Design and Bevel Orientation on Fluid Leak Across Human Dura.	A340
<i>S. R. Cuplin, L. B. Ready, and R. H. Haschke</i>	
Absorption Pharmacokinetics of Ropivacaine Following Epidural Administration in the Rhesus Monkey.	A341
<i>J. A. Katz, S. Sehlhorst, D. D. Denson, and P. O. Bridenbaugh</i>	

Pharmacokinetics of Ropivacaine in Nonpregnant and Pregnant Ewes.	A342
<i>A. Santos, H. Pedersen, H. O. Morishima, M. Finster, and G. R. Arthur</i>	
Ropivacaine Vasoconstricts Cutaneous Blood Vessels.	A343
<i>D. J. Kopacz, R. L. Carpenter, and D. C. Mackey</i>	
Systemic Toxicity of Ropivacaine in Pregnant and Nonpregnant Ewes.	A344
<i>H. Pedersen, A. Santos, H. O. Morishima, M. Finster, and B. G. Covino</i>	
Central Nervous System and Cardiovascular Effects and Interaction Between Lidocaine and Chronic Verapamil Therapy in Awake Cats.	A345
<i>T. Castro, H. H. Biscardi, M. J. O'Connell, R. Dick, and J. D. O'Benar</i>	
LOCAL ANESTHESIA AND PAIN II	
An Improved HPLC Method for Determination of Bupivacaine in Human Plasma.	A346
<i>T. I. Alakokko, G. E. Larijani, T. F. Boerner, and W. H. Vogel</i>	
Double-Blind Ultrasonographic Demonstration of Morphine-Induced Spasm of the Common Bile Duct.	A347
<i>Z. G. Vieira, B. Duarte, S. A. Renigers, B. Sigel, and E. K. Zsigmond</i>	
Controlled Iontophoretic Delivery of Morphine HCL for Postoperative Pain Relief.	A348
<i>M. A. Ashburn, R. L. Stephen, T. J. Petelenz, and A. A. Hofmann</i>	
Vascular Actions of Local Anesthetics: Role of the Vascular Endothelium.	A349
<i>R. A. Johns</i>	
The Effect of Intrathecal Morphine on Lower Extremity Somatosensory Evoked Potentials in Man.	A350
<i>A. Schubert, M. G. Licina, P. J. Lineberry, J. E. Tobin, and G. S. Bacon</i>	
Arterial and Ventricular Cerebrospinal Fluid Pharmacokinetics After Intrathecal Meperidine in Man.	A351
<i>P. Maurette, P. Tauzin-Fin, G. Vincon, and A. Brachet-Lierman</i>	
Intrathecal Methadone and Morphine for Postoperative Analgesia: A Comparison of the Efficacy, Duration and Side Effects.	A352
<i>L. Jacobson, C. Chabal, M. C. Brody, R. J. Ward, and R. C. Ireton</i>	
Intrathecal Morphine for the Treatment of Spasticity.	A353
<i>D. H. Gall, J. N. Lo, R. L. Gauthier, D. L. Erickson, and M. Michaelson</i>	
Clonidine During Hyperbaric Tetracaine Spinal Anesthesia: Dose-Response Relationship in Humans.	A354
<i>F. Bonnet, V. B. Buisson, M. Saada, O. Boico, and S. Rostaing</i>	

Spinal Anesthesia with Isobaric Bupivacaine and Hyperbaric Lidocaine Mixtures. <i>P. Zetlaoui, J. M. Pennec, P. Gabriel, R. Mazze, and K. Samii</i>	A355
New Discharge Criteria Decrease Recovery Room Time After Subarachnoid Block. <i>C. M. Alexander, L. E. Teller, J. B. Gross, D. Owen, C. Cunningham, and F. E. Laurencio</i>	A356
2-Chloroprocaine and Bupivacaine as Indicators of Intravascular Injection. <i>B. E. Harrington, J. M. Neal, D. C. Mackey, and M. F. Mulroy</i>	A357
LOCAL ANESTHESIA AND PAIN III	
Vascular Effects of 2-Chloroprocaine and Sodium Metabisulfite on Isolated Rat Aortic Rings. <i>M. H. Wills, R. A. Johns, D. J. Stone, J. C. Moscicki, and C. A. DiFazio</i>	A358
A Principal Metabolite of 2-Chloroprocaine Does Not Act as a U-Opiate Receptor Antagonist in the Dog. <i>N. N. Naughton, D. A. Pelligrino, and R. F. Albrecht</i>	A359
Laser Doppler Capillary Flow Measurements Accurately Predict Blood Loss from Skin Incisions in Pigs. <i>R. L. Carpenter, D. J. Kopacz, and D. C. Mackey</i>	A360
Differential Resistance of Individual Unmyelinated and Myelinated Axons to Glucose Deficiency or Anoxia. <i>B. R. Fink and A. M. Cairns</i>	A361
Evaluation of Transdermal Fentanyl for Multi-Day Analgesia in Postoperative Patients. <i>S. D. Bell, G. E. Larjani, M. E. Goldberg, A. T. Marr, and G. Rudloff</i>	A362
Pharmacokinetics of Fentanyl Following Transdermal Application. <i>G. E. Larjani, S. D. Bell, M. E. Goldberg, and J. B. Lessin</i>	A363
Transdermally Administered Fentanyl for Postoperative Pain: A Randomized, Double-Blind, Placebo Controlled Trial. <i>P. M. Plezia, J. Linford, T. H. Kramer, R. P. Iacono, and S. R. Hameroff</i>	A364
An Animal Model of Intrapleural Analgesia. <i>F. X. Riegler, D. A. Pelligrino, and T. R. VadeBoncouer</i>	A365
Intrapleural Anesthesia for Mammography with Needle Localization and Breast Biopsy. <i>T. M. Schlesinger, C. E. Laurito, C. Carranza, and L. I. Kirz</i>	A366

A Double Blind Comparison of Intrapleural Bupivacaine with Saline Placebo for Pain Relief After Cholecystectomy.	A367
<i>T. R. VadeBoncouer, R. S. Gault, F. X. Riegler, and G. L. Weinberg</i>	
pH-Adjusted Lidocaine/Bupivacaine Mixtures are Superior for Peribulbar Anesthesia.	A368
<i>K. Zahl, A. Jordan, B. Sorensen, and A. W. Gotta</i>	
Subarachnoid Injection—A Potential Complication of Retrobulbar Block.	A369
<i>B. C. Wang, B. I. Bogart, D. E. Hillman, and H. Turndorf</i>	
LOCAL ANESTHESIA AND PAIN IV	
The Comparative Incidence of Postoperative Vomiting in Adult and Teen Unilateral Strabismus Surgeries Performed Under General Anesthesia or Retrobulbar Blockade.	A370
<i>R. A. Lawler, C. Larson, T. Rudy, and A. Biglan</i>	
Examination of the Central-Venous Epinephrine Level During Local Dental Infiltration and Block Anesthesia Using Tritium-Marked Epinephrine as Vasoconstriction.	A371
<i>M. D. W. Lipp, W. F. Dick, M. Daubländer, I. Hornke, and H. Fuder</i>	
Patient Controlled Analgesia for Post-Surgical Pediatric Patients Ages 6–16 Years.	A372
<i>E. Dodd, J. M. Wang, and R. L. Rauck</i>	
Pharmacokinetics of Bupivacaine Following Cervical Block for Carotid Endarterectomy.	A373
<i>B. Debaene, A. Elman, P. Georges, F. Feger, and A. A. Talon</i>	
Effect of Femoral Nerve Blockade on Blood Loss During Hip Arthroplasty.	A374
<i>E. T. Ang, S. Khon, G. Goldfarb, B. Lassale, and P. Jolis</i>	
Femoral Nerve Block in Fractured Shaft of Femur.	A375
<i>B. Riou, P. Barriot, and P. Viars</i>	
Physics Applied to Regional Anesthesia Results in an Improved Supraclavicular Nerve Block: The “Plumb-Bob” Technique.	A376
<i>D. L. Brown and L. D. Bridenbaugh</i>	
Alkalinization of Mepivacaine for Axillary Block.	A377
<i>J. J. Quinlan, K. M. Oleksey, and F. L. Murphy</i>	
Comparison of Lidocaine Carbonate to Lidocaine Hydrochloride Using the Interscalene Approach: The Continuing Controversy.	A378
<i>K. G. Knape, S. Ramamurthy, J. Blanchard, and J. Hoffman</i>	

A Complete Regional Anesthetic Technique for Cardiac Pacemaker Insertion.	A379
<i>K. D. Candido, S. M. A. Raza, A. R. Vasireddy, R. W. Masters, and A. P. Winnie</i>	
Pharmacokinetics Following Lidocaine Laryngeal Nerve Block.	A380
<i>Ph. Mahiou, J. Hamza, A. Haiat, J. X. Mazoit, V. Martin, and C. Ecoffey</i>	
Serum Alcohol, CPK, and Amylase Levels Following Celiac Plexus Block with Alcohol.	A381
<i>T. R. Lubenow and A. D. Ivankovich</i>	

POSTER SESSION I—LOCAL ANESTHESIA AND PAIN

Effects of Epidural Analgesia and Dopamine on Systemic and Intestinal Hemodynamics.	A382
<i>J. Lundberg, B. Biber, J. Martner, and O. Werner</i>	
Assessment of Epidural Block Onset with a Nerve Stimulator.	A383
<i>D. Benhamou, T. Labaille, and J. Jebbri</i>	
Continuous Epidural Infusions of Bupivacaine and Morphine Versus Systemic Narcotic Analgesics for Postoperative Pain Relief.	A384
<i>R. V. Gregg, D. D. Denson, D. C. Knarr, and R. C. Stuebing</i>	
Epidural Methadone Does Not Significantly Increase Urinary Bladder Size in Unanesthetized Rabbits.	A385
<i>B. C. Wang, J. M. Hiller, E. J. Simon, and H. Turndorf</i>	
Epidural Opioids Do Not Affect Skin Capillary Blood Flow.	A386
<i>B. L. Partridge and J. Katz</i>	
Epidural Spinal Electrical Stimulation (ESES) in Severe Limb Ischemia.	A387
<i>S. R. Joshi, M. J. H. M. Jacobs, P. J. G. Jörning, and S. deLange</i>	
Epidural Clonidine Produces Postoperative Analgesia.	A388
<i>O. Boico, F. Bonnet, S. Rostaing, J. F. Loriferne, L. Quintin, and M. Ghignone</i>	
Prospective Evaluation of Continuous Epidural Narcotic-Bupivacaine Infusions in 1000 Postoperative Patients.	A389
<i>T. R. Lubenow, J. Wong, R. J. McCarthy, W. G. Logas, and A. D. Ivankovich</i>	
Evoked Potentials During Epidural Anesthesia.	A390
<i>P. R. Wilson, D. J. Wedel, and J. R. Daube</i>	
Epidural Fentanyl With and Without Epinephrine Plasma Levels and Pain Relief.	A391
<i>M. Henry, A. Graizon, J. Seebacher, D. Vauthier, J. C. Levron, and P. Viars</i>	

Study on Tolerance Development After Daily Epidural Injection of Sufentanil in Dogs.	A392
<i>M. Sabbe, E. Mjanger, M. Sosnowski, and T. L. Yaksh</i>	
Onset and Duration of Epidural Analgesia with <i>pH</i> -Adjusted Bupivacaine: Is the Change in <i>pH</i> the Difference?	A393
<i>E. Bavoux, D. Benhamou, N. Clavier, N. Perrachon, and T. Labaille</i>	
The Orientation of Tissue Fibers in Human Dorsal Lumbar Dura Mater. An EM Study.	A394
<i>B. R. Fink and S. Walker</i>	
Clonidine for Postoperative Analgesia: Epidural Versus IM Study.	A395
<i>F. Bonnet, O. Boico, S. Rostaing, J. F. Loriferne, L. Quintin, and M. Ghignone</i>	
Does Atropine Conceal the Heart Rate Response to an Epidural Test Dose?	A396
<i>P. Narchi, J. X. Mazoit, and K. Samii</i>	
Comparison of Continuous Epidural Infusions of Sufentanil-Bupivacaine with Morphine-Bupivacaine.	A397
<i>T. R. Lubenow, R. L. Fischer, T. P. Besser, R. J. McCarthy, L. M. Newman, and A. D. Ivankovich</i>	
Analgesic Effect of Epidural Clonidine and Nalbuphine in Combined Use.	A398
<i>M. S. Mok, J. J. Wang, J. H. Chan, S. E. Liu, and M. Lippmann</i>	
Dural Transfer of Phenol Following Epidural Injection in Cynomologus Monkeys.	A399
<i>R. R. Concilio, C. S. Sehlhorst, D. D. Denson, J. Katz, and R. V. Gregg</i>	
Ventilatory Effects of Laparoscopy Under Epidural Anesthesia.	A400
<i>M. J. Ciofolo, F. Clergue, J. Seebacher, G. Lefebvre, and P. Viars</i>	
A Comparison of Epidural Fentanyl, Buprenorphine and Butorphanol for the Management of Post Cesarean Section Pain.	A401
<i>W. E. Ackerman, M. M. Juneja, and G. W. Colclough</i>	
The Thermoregulatory Effects of Cold and Warm Epidural Saline.	A402
<i>J. Ponte and D. I. Sessler</i>	
Comparison of Epidural Lidocaine and Epidural Narcotics for Extracorporeal Shock Wave Lithotripsy.	A403
<i>K. Madsen, T. Ebert, D. McDonald, S. Eichner, and D. Stowe</i>	
Continuous Thoracic Epidural Analgesia for 5 Days: Clinical and Plasma Evaluation.	A404
<i>J. C. Guillen, J. Ragni, B. Bruguerolle, J. C. Levron, and C. Martin</i>	

Compounding Local Anesthetics and Narcotics for Epidural Analgesia in Cancer Outpatients.	A405
<i>S. L. DuPen and D. H. Ramsey</i>	
Epidural Fentanyl and Bupivacaine Combinations in Patients Undergoing Pelvic Surgery.	A406
<i>P. A. Tewes, L. M. Vella, S. Thomas, and H. M. Goll</i>	
Does the Sympathetic Block Outlast Sensory Block—A Thermographic Evaluation.	A407
<i>S. Ramamurthy, J. Blanchard, W. E. Strong, and J. Hoffman</i>	
Comparison of the Hemodynamic Effect of Clonidine Administered Epidurally (EPI) and Intravenously (IV).	A408
<i>M. Ghignone, O. Calvillo, T. Lanier, and L. Quintin</i>	
Prophylactic Transdermal Scopolamine Reduces Nausea in Postoperative Patients Receiving Epidural Morphine.	A409
<i>K. A. Loper, L. B. Ready, and B. H. Dorman</i>	
Histopathologic Consequences of Epidural Blood Patch and Epidurally Administered Dextran 40.	A410
<i>C. J. Lander and G. A. Korbon</i>	
Diagnosis and Treatment of Epidural Infections—A Complication of Long-Term Epidural Narcotic Administration.	A411
<i>S. L. DuPen and D. H. Ramsey</i>	
METABOLISM AND REGULATION I	
Porcine Malignant Hyperthermia: Succinylcholine-Induced Masseter Muscle Contraction.	A412
<i>B. C. Leiman and T. E. Nelson</i>	
Triglyceride Lipase, Not Phospholipase A ₂ , Activity is Elevated in Skeletal Muscle from Malignant Hyperthermia Susceptibles.	A413
<i>J. E. Fletcher, H. Rosenberg, K. Michaux, L. Tripolitis, and F. H. Lizzo</i>	
Early Electroencephalographic Changes During Porcine Malignant Hyperthermia.	A414
<i>E. Kochs, N. Roewer, and J. Schulte am Esch</i>	
Malignant and Exercise Hyperthermia: Investigation of 73 Subjects by Contracture Test and P31 NMR Spectroscopy.	A415
<i>G. Kozak-Reiss, J. P. Gascard, P. Herve, P. Jehenson, and A. Syrota</i>	
Dantrolene: Lack of Antiarrhythmic Properties in Man.	A416
<i>N. Roewer, M. Kentsch, K. P. Kunze, and K. H. Kuck</i>	

Preparation of Skeletal Muscle Triads from Normal and Malignant Hyperthermia-Susceptible Swine and Differences in Their Protein Electrophoresis Profile.	A417
<i>M. S. Millman and M. D'Amico</i>	
Anesthetics Increase Cytosolic Calcium in Mononuclear Cells from Normal and MH-Susceptible Patients.	A418
<i>R. Smiley, S. Greenberg, and S. C. Silverstein</i>	
Azumolene, A New Dantrolene Analogue, Antagonizes Halothane and Caffeine Contractures: Potential for Use in Malignant Hyperthermia.	A419
<i>J. E. Fletcher, F. H. Lizzo, and H. Rosenberg</i>	
METABOLISM AND REGULATION II	
Effect of Food on Metoclopramide Bioavailability.	A420
<i>C. M. Cronin, R. F. Kaiko, N. Healy, G. B. Thomas, and P. D. Goldenheim</i>	
Effects of Growth Hormone (GH) and Total Parenteral Nutrition (TPN) in Patients with Chronic Obstructive Pulmonary Disease (COPD) and Malnutrition.	A421
<i>U. Suchner, M. M. Rothkopf, G. Stanislaus, and J. Askanazi</i>	
The Dextromethorphan Phenotyping Test Accurately Predicts Debrisoquin Hydroxylase Phenotype.	A422
<i>M. J. Avram, T. K. Henthorn, T. C. Krejcie, J. Benitez, R. D. Gibbons, A. Llerena, C. Martinez, and J. Cobaleda</i>	
A Comparison of Epinephrine and Ritodrine to Treat Severe Hyperkalemia.	A423
<i>D. V. Follett, R. G. Loeb, and S. C. Haskins</i>	
Esmolol Is Not Associated with an Exaggerated Succinylcholine-Mediated Hyperkalemic Response.	A424
<i>J. D. Halevy, E. Ornstein, and R. S. Matteo</i>	
The Effects of Nitrous Oxide on Cerebral Metabolism During Severe Hypoxia.	A425
<i>M. M. Keykhah, C. Carlsson, J. R. Harp, J. J. O'Neil, and R. Storella</i>	
Metabolites of Methohexitol Do Not Contribute to Its Prolonged Action on the Central Nervous System.	A426
<i>K. Korttila, M. Ghoneim, C. Chiang, E. Nuotto, and L. Fischer</i>	
The Triphasic EEG Response to Insulin-Induced Hypoglycemia in Healthy Subjects.	A427
<i>R. N. Sakamoto, S. A. Chalew, R. J. McCarter, Jr., M. J. Matjasko, and A. A. Kowarski</i>	
Effect of Hypocapnia on Regional Cerebral Glucose Utilization.	A428
<i>S. K. Samra, P. Turk, and J. F. Arens</i>	

Does Preoxygenation Lower Oxygen Consumption?	A429
<i>R. D. Valley, W. J. Lucas, and E. A. Norfleet</i>	
Reversible Decrease of Oxygen Consumption by Hyperoxia.	A430
<i>K. Reinhart, F. Bloos, F. Koenig, D. Bredle, and L. Hannemann</i>	
Comparative Study of Changes in Total Body Oxygen Consumption with Sufentanil and Halothane Anesthesia.	A431
<i>A. R. Nancherla, T. F. Gammon, P. J. Lineberry, and T. F. Macnamara</i>	

METABOLISM AND REGULATION III

Inability of Nitrous Oxide to Inhibit Replication of Thymidine Kinase Negative Cells.	A432
<i>B. A. Davidson, P. R. Knight, and A. R. Tait</i>	
Combined Effects of Ethanol and Nitrous Oxide on Methionine Synthase.	A433
<i>B. W. Tomerson and D. D. Koblin</i>	
Dimethylthiourea Impedes the Inactivation of Methionine Synthase by Nitrous Oxide.	A434
<i>D. D. Koblin and B. W. Tomerson</i>	
Serum Ammonia Levels in Response to Glycine Infusion in Normal and Cirrhotic Rats.	A435
<i>E. J. Frink, J. Gibson, D. A. DiGiovanni, and B. R. Brown, Jr.</i>	
Amino Acids Fail to Reverse Halothane Depression of Albumin Synthesis.	A436
<i>J. B. Kruskal, J. J. Franks, and R. E. Kirsch</i>	
Halothane Does Not Affect Rates of Protein Synthesis in the Isolated, Perfused Rat Heart at Aortic Pressures of 60 mmHg.	A437
<i>T. M. Skeehan and C. J. Peterson</i>	
Role of Oxidative Biotransformation of Halothane in the Guinea Pig Model of Halothane-Associated Hepatotoxicity.	A438
<i>R. C. Lind, A. J. Gandolfi, P. de la M. Hall, and B. R. Brown, Jr.</i>	
Assays for the Detection of Antibodies Directed Against Halothane-Induced Liver Neoantigens in the Sera of Patients with Halothane Hepatitis.	A439
<i>J. L. Martin, J. G. Kenna, H. Satoh, and L. R. Pohl</i>	
Hepatic Oxygen Supply-Demand Relationship During Anesthesia in the Pig.	A440
<i>K. Nagano, S. Gelman, D. Parks, T. Henderson, and T. Lowery</i>	

Substrate Dependence of Halothane Effects on Energy Metabolism in Isolated Hepatocytes.	A441
<i>G. L. Becker, P. J. Reilly, and D. F. Landers</i>	
Effect of Body Weight, Sex, and Nitrous Oxide on Halothane Hepatotoxicity in the Guinea Pig.	A442
<i>R. C. Lind, A. J. Gandolfi, P. de la M. Hall, and B. R. Brown, Jr.</i>	
Support for Neutrophil-Mediated Cytotoxicity in Halothane Hepatitis.	A443
<i>A. K. Costa, D. F. Heffel, and J. R. Trudell</i>	
METABOLISM AND REGULATION IV	
Do Heated Humidifiers of Heat and Moisture Exchangers Really Prevent Temperature Drop During Surgery?	A444
<i>F. Rosenblum, M. E. Goldberg, G. E. Larjani, R. H. Jan, R. H. Epstein, A. T. Marr, J. L. Lessin, and J. L. Seltzer</i>	
The Effect of Papaverine and Scopolamine on Small Bowel Relaxation During Surgery.	A445
<i>D. Thangathurai, T. Oyos, D. Nelson, H. W. Allen, and J. F. Viljoen</i>	
The Protective Effect of Halothane on Ischemic Isolated Rabbit Kidney Tubules.	A446
<i>M. J. Rice, J. H. Southard, and J. A. Hjelmhaug</i>	
Evaluation of Renal Diluting Ability and of Hormonal Responses in Intensive Care Unit Patients.	A447
<i>D. Dreyfuss, M. Sperandio, F. Leviel, M. Paillard, J. Marty, and F. Coste</i>	
Atrial Natriuretic Peptide Concentrations During Aortic Surgery With and Without Nitroglycerin.	A448
<i>G. Graybar, S. Gelman, H. McDowell, G. Gross, and J. Work</i>	
Efficacy of Antiemetic Prophylaxis in Patients Receiving General Anesthesia for Outpatient Surgery.	A449
<i>M. L. Young, D. S. Kitz, R. Andrews, J. H. Lecky, and T. J. Conahan</i>	
Albumin: An Endogenous Calcium Antagonist?	A450
<i>R. C. Priellipp, D. Washburn, and G. P. Zaloga</i>	
Pharmacokinetics and Hemodynamic Effects of Calcium Chloride and Calcium Gluconate During Liver Transplantation.	A451
<i>T. J. Martin, Y. Kang, J. M. Marquez, R. Seifert, and K. M. Robertson</i>	
Calcium Currents Are Decreased by Halothane, Enflurane and Isoflurane in Isolated Canine Ventricular and Purkinje Cells.	A452
<i>Z. J. Bosnjak and N. J. Rusch</i>	

Barbiturates May Suppress Action of G-Proteins in Endothelial Cells.	A453
<i>A. Robinson-White and M. D. Collado-Escobar</i>	
The Effects of Halothane, Enflurane and Isoflurane on the Hepatic Intrinsic Clearance of Lidocaine and Propranolol.	A454
<i>E. J. Frink and B. R. Brown, Jr.</i>	
Halothane Inhibition of Drug Metabolism Is Stereoselective.	A455
<i>E. Whelan, A. J. J. Wood, R. Koshakji, I. Blair, and M. Wood</i>	
METABOLISM AND REGULATION V	
Extrahepatic Metabolism of Morphine Occurs in Humans.	A456
<i>J. X. Mazoit, P. Sandouk, and A. Roche</i>	
Pharmacokinetics of Epidural and Intravenous Morphine in Obstetrical Patients.	A457
<i>F. Parker, H. Weiss, K. Ramabadran, S. Ramanathan, and H. Turndorf</i>	
Sufentanil Pharmacokinetics in Patients with Cirrhosis.	A458
<i>M. Chauvin, C. Ferrier, J. P. Haberer, C. Spielvogel, J. C. Levron, and P. Duvaldestin</i>	
Hepato-Splanchnic Sufentanil Extraction and Urinary/Biliary Excretion Rates in Pigs: Comparison with Humans.	A459
<i>H. K. Schedewie, L. A. Lee, K. A. Kudsk, R. P. Bynoe, and J. A. Pieper</i>	
The Performance of Pharmacokinetic Parameters Derived from a Computer-Controlled Infusion Pump.	A460
<i>S. L. Shafer, J. R. Varvel, N. Aziz, and J. C. Scott</i>	
Effects of Propofol on Drug Disposition: Marked Effects on Drug Distribution, Less Effect on Drug Metabolism.	A461
<i>S. M. Perry, E. Whelan, S. Shay, A. J. J. Wood, and M. Wood</i>	
Lung Contribution to Propofol Clearance: A Study in Isolated Rat Lungs.	A462
<i>F. Servin, L. Tamisier, R. Farinotti, J. P. Marmuse, and J. M. Desmonts</i>	
Propofol Pharmacokinetics in Morbidly Obese Patients.	A463
<i>F. Servin, J. H. Trouvin, R. Farinotti, and J. M. Desmonts</i>	
Alfentanil Clearance Is Independent of the Polymorphic Debrisoquin Hydroxylase.	A464
<i>T. K. Henthorn, M. J. Avram, and T. C. Krejcie</i>	
Pharmacokinetics of Midazolam and Alfentanil in Outpatient Anesthesia.	A465
<i>J. C. Rader and O. G. Nilsen</i>	
Alfentanil Pharmacokinetics: Intravascular Space and Cardiac Output.	A466
<i>T. C. Krejcie, T. K. Henthorn, and M. J. Avram</i>	

Biotransformation of Alfentanil in Man. A467

J. G. Bovill, J. Odoom, and J. Heykants

NEUROMUSCULAR TRANSMISSION I

Train-of-Four Assessment at Various Monitor Currents. A468

S. J. Brull, J. Elwood, J. Ehrenwerth, and D. G. Silverman

Quantitative Comparison of Evoked Electromyographic and Mechanical Responses of the Adductor Pollicis Muscle During a Regional Neuromuscular Blockade Technique with Vecuronium. A469

B. Eon, J. B. Blache, Ph. Aknin, and G. Francois

Comparison of Thumb Acceleration and Thenar EMG Responses in the Pharmacodynamic Evaluation of Neuromuscular Blockade. A470

O. A. Meretoja, M. U. Werner, K. Wirtavuori, and T. Luosto

Intraoperative Thermoregulatory Vasoconstriction Decreases Adductor Pollicis Muscle Temperature; Adductor Pollicis Muscle Cooling Decreases Twitch Tension. A471

T. Heier, J. B. Kitts, J. E. Caldwell, D. I. Sessler, and R. D. Miller

Comparative Evoked Thumb and Jaw Force Measurement Using Accelerometry. A472

M. J. Curran, H. H. Ali, J. J. Savarese, A. M. Shash, and S. J. Basta

Problems of Recovery and Residual Neuromuscular Blockade: Pancuronium Versus Vecuronium. A473

S. J. Brull, D. G. Silverman, and J. Ehrenwerth

Monitoring of Neuromuscular Transmission in Infants and Children: A Comparison Between an Acceleration Responsive Transducer and a Force Displacement Transducer. A474

M. U. Werner

Neuromuscular Blockade After Surgery: Comparison of Clinical Assessment and Evoked Twitch Responses. A475

D. R. Bevan, C. E. Smith, and F. Donati

NEUROMUSCULAR TRANSMISSION II

The Use of Post-Tetanic Count (PTC) During Repetitive Administration of Vecuronium. A476

L. I. Eriksson, P. Staun, C. Lennmarken, and J. Viby-Mogensen

Effects of Two Doses of Vecuronium on the M. Vocalis and the Adductor Pollicis in Man. A477

A. Werba, H. Gilly, W. Streinzer, M. Zrunek, and C. K. Spiss

Effect of Vecuronium on Dose-Response Relationships for Atropine-Induced Changes in Heart Rate.	A478
<i>S. Ridley, D. Gaylard, and M. Lim</i>	
Does the Independent Measurement of 3-Desacetylvecuronium Influence the Pharmacokinetics of Vecuronium?	A479
<i>K. P. Castagnoli, J. E. Caldwell, P. C. Canfell, D. P. Lynam, J. R. Arden, and R. D. Miller</i>	
Hepatic Extraction and Clearance of Vecuronium in Humans.	A480
<i>G. Goldfarb, P. Gauneau, E. T. Ang, B. Lassale, and P. Jolis</i>	
Pharmacodynamics of ORG 8764, Atracurium and Vecuronium: A Comparison of Vocal Cord, Diaphragm and Tibial Muscle Relaxation.	A481
<i>H. Gilly, M. M. Hirschl, and K. Steinbereithner</i>	
Pharmacokinetics of Atracurium in Elderly and Young Adults.	A482
<i>J. B. Kitts, D. M. Fisher, P. C. Canfell, M. J. Spellman, J. E. Caldwell, T. Heier, M. R. Fahey, and R. D. Miller</i>	
Modelling of Atracurium-Induced Neuromuscular Depression in Different Muscle Groups Using a Multibiophase Comparative Model.	A483
<i>H. Gilly, M. M. Hirschl, K. Steinbereithner, and J. Zaussinger</i>	
Elevated Plasma Levels of Laudanosine Are Associated with High Plasma Concentrations of Norepinephrine During Orthotopic Liver Transplantation in Pigs.	A484
<i>J. F. Pittet, E. Tassonyi, C. Schopfer, D. R. Morel, M. Fahti, and A. Benakis</i>	
Combined H1 and H2 Receptor Blockade Attenuates the Cardiovascular Effects of High-Dose Atracurium for Rapid-Sequence Endotracheal Intubation.	A485
<i>M. P. Hosking, R. L. Lennon, and G. A. Gronert</i>	
Plasma Levels of Laudanosine, But Not of Atracurium, Are Increased During the Anhepatic Phase of Orthotopic Liver Transplantation in Pigs.	A486
<i>J. F. Pittet, C. Schopfer, D. R. Morel, G. Mentha, A. Benakis, and E. Tassonyi</i>	
Exercise Produces Sensitivity to Metocurine.	A487
<i>G. A. Gronert, R. S. Matteo, S. Shafer, and D. A. White</i>	
NEUROMUSCULAR TRANSMISSION III	
Accelerated Recovery from Doxacurium Chloride Induced Neuromuscular Blockade in Patients Receiving Chronic Phenytoin Therapy.	A488
<i>E. Ornstein, R. S. Matteo, J. A. Weinstein, J. D. Halevy, and W. L. Young</i>	
Dose-Response Relationship of BWA 938U Under Balanced Anesthesia: A Comparative Study with Pancuronium.	A489
<i>H. Deriaz, A. Courtade, and A. Lienhart</i>	

Pipecuronium Dose Requirements for Maintenance of Steady State Neuromuscular Blockade During Orthotopic Liver Transplantation in Pigs.	A490
<i>J. F. Pittet, P. Leemann, D. R. Morel, G. Mentha, and E. Tassonyi</i>	
Effects of Volatile Anesthetics and Age on the Dose Requirement and Duration of Neuromuscular Blockade with Pipecuronium.	A491
<i>E. Tassonyi, J. F. Pittet, J. C. Rouge, G. Gemperle, M. Richter, and D. R. Morel</i>	
Dose-Response Relationships of Succinylcholine at the Masseter and Adductor Pollicis Muscle in Humans.	A492
<i>C. E. Smith, F. Donati, and D. R. Bevan</i>	
Precurarization Does Not Alter Dose-Response to Succinylcholine.	A493
<i>J. B. Eisenkraft, A. Herlich, W. J. Book, S. M. Mann, and M. Hubbard</i>	
Attenuation of Succinylcholine Myalgias: Effect of Midazolam and Vecuronium.	A494
<i>A. Herlich, J. B. Eisenkraft, M. Mingus, S. M. Mann, L. Tauscher, and M. Hubbard</i>	
Bambuterol (Carbamylated Terbutaline) Prolongs the Duration of Action of Succinylcholine.	A495
<i>D. M. Fisher, J. E. Caldwell, M. Sharma, and J-E. Wirén</i>	
Succinylcholine Dose-Response in Myasthenia Gravis.	A496
<i>J. B. Eisenkraft, S. M. Mann, W. J. Book, A. E. Papatestas, and M. Hubbard</i>	
Cognitive Tunnel Vision in the Operating Room: Analysis of Cases Using a Frame Model.	A497
<i>R. I. Cook and J. S. McDonald</i>	
Results of Systematic, Concurrent Monitoring in a Quality Assurance Program in Anesthesiology.	A498
<i>J. A. Cohen</i>	
Does a Quality Assurance Program Improve Patient Care.	A499
<i>B. Schreider, M. F. Roizen, L. Lichitor, R. Roberts, M. Keamy, S. Polk, M. Delisi, and R. Holmes</i>	
POSTER SESSION V—NEUROMUSCULAR TRANSMISSION	
The Prejunctional Effects of Nondepolarizing Muscle Relaxants in the Cat.	A500
<i>T. Baker, A. Stanec, and H. E. Lowndes</i>	
Lower Motor Neuron Injury Induces Resistance to <i>d</i> -Tubocurarine.	A501
<i>C. W. Hogue, Jr. and J. A. J. Martyn</i>	
Effects of Nitrous Oxide on the Properties of Ion Channels Activated by Acetylcholine.	A502
<i>E. S. Wegrynowicz and R. E. Wachtel</i>	

Relationship of Train-of-Four Ratio to Twitch Depression During Neuromuscular Block Induced by Intra-arterial Injection.	A503
<i>Y. Amaki, T. Wada, and K. Kobayashi</i>	
Ketamine Prolongs the Refractoriness of Neuromuscular Transmission.	A504
<i>C. Lee, M. Cheng, and S. K. Tsai</i>	
The Influence of Respiratory and Metabolic Acid-Base Changes on the Neuromuscular Effects of Nondepolarizing Muscle Relaxants.	A505
<i>K. Ono, O. Nagano, Y. Ohta, K. Morita, and F. Kosaka</i>	
Chronic Nifedipine Therapy Does Not Prolong the Neuromuscular Effects of Vecuronium and Atracurium.	A506
<i>R. K. Mirakhur, P. F. Bell, and R. S. J. Clarke</i>	
Malnutrition is Associated with Resistance to Pancuronium.	A507
<i>T. Symreng, M. D. Sokoll, D. Walter, and M. Winicoff</i>	
Effects of Cimetidine on Neuromuscular Blockade of Vecuronium in Man.	A508
<i>X Ormezzano, D. Chassard, B. Bryssine, C. Raupp, and P. Bouletreau</i>	
Antagonism of Pre- and Postsynaptic Neuromuscular Block by Methylguanidine and 4-Aminopyridine.	A509
<i>P. Hartwell, H. Nagashima, M. Salama, P. L. Goldiner, and F. F. Foldes</i>	
Comparison of Edrophonium and Neostigmine Antagonism of Atracurium-Induced Neuromuscular Blockade in Infants and Children.	A510
<i>K. Wirtavuori and O. A. Meretoja</i>	
Reversal of the <i>d</i> -Tubocurarine Block by Combinations of Methylguanidine and Cholinesterase Inhibitors <i>In Vitro</i> .	A511
<i>H. Nagashima, M. G. Salama, P. L. Goldiner, I. A. Chaudhry, D. Duncalf, and F. F. Foldes</i>	
Comparison of Reversal Agents and Their Effects on Acetylcholine-Activated Ion Channels.	A512
<i>R. E. Wachtel</i>	
Antagonism of Vecuronium-Induced Diaphragmatic Neuromuscular Blockade by Neostigmine.	A513
<i>C. Lebrault, M. Chauvin, F. Guirimand, and P. Duvaldestin</i>	
Actions of Nondepolarizing Neuromuscular Blocking Drugs: Differences Between Onset and Recovery.	A514
<i>R. J. Storella and S. A. Slomowitz</i>	

The Effect of Muscle Relaxants on Postsynaptic Nicotinic and Muscarinic Receptors.	A515
<i>I. A. Chaudhry, A. Torocsik, K. Biro, H. Nagashima, R. Nagashima, P. L. Goldiner, D. Duncalf, E. S. Vizi, and F. F. Foldes</i>	
Comparison of the Presynaptic Inhibitory Effect of Nondepolarizing Muscle Relaxants.	A516
<i>F. F. Foldes, N. Manabe, I. A. Chaudhry, and H. Nagashima</i>	
The Effect of Pancuronium on the Release of Acetylcholine from the Right Atrium of the Guinea Pig.	A517
<i>N. Manabe, M. Kinjo, I. A. Chaudhry, P. L. Goldiner, and F. F. Foldes</i>	
A Semiparametric Method of Estimating the Equilibration Delay for Neuromuscular Blocking Drugs.	A518
<i>S. L. Shafer, J. R. Varvel, and G. Gronert</i>	
Effects of Amrinone and Aminophylline on Skeletal Muscle Twitch Responses in Dogs.	A519
<i>S. S. Moorthy, S. F. Dierdorf, and G. Krishna</i>	
The Interactions of Timolol with Neostigmine and Atropine in Dogs.	A520
<i>J. D. Emhardt, L. J. Means, W. L. Hanson, W. W. Wagner, Jr., G. Krishna, and R. K. Stoeling</i>	
Relationship Between the Time to Beginning of Recovery After the Initial Bolus of Muscle Relaxant and the Infusion Rate Requirements for Mivacurium and Succinylcholine.	A521
<i>S. K. Woelfel, B. W. Brandom, D. R. Cook, B. Whitehead, and L. M. Borland</i>	
Potency of Mivacurium Chloride (BW B1090U) During Narcotic-Nitrous Oxide Anesthesia in Children.	A522
<i>J. B. Sarner, B. W. Brandom, S. K. Woelfel, M. L. Dong, M. Horn, D. R. Cook, V. J. Foster, and B. F. McNulty</i>	
Comparison of Mivacurium (B 1090U) and Succinylcholine During Outpatient Laparoscopy.	A523
<i>S. M. Poler, G. Luchtefeld, and P. F. White</i>	
The Effects of Enflurane on Mivacurium Chloride Infusion Requirements.	A524
<i>C. A. Shanks, R. J. Fragen, D. Pemberton, J. A. Katz, J. N. Weakly, M. E. Risner, and T. L. Williams</i>	
Tracheal Intubation at Two Minutes with Mivacurium Chloride, 0.15 µg/kg and 0.25 µg/kg.	A525
<i>R. J. Fragen, C. A. Shanks, J. A. Katz, D. Pemberton, J. N. Weakly, M. E. Risner, and N. M. Wise</i>	

Dose-Response of Mivacurium Chloride in Children During Nitrous Oxide-Oxygen-Narcotic Anesthesia.	A526
<i>N. G. Goudsouzian, J. K. Alifimoff, C. Eberly, R. K. Smeets, and V. J. Foster</i>	
A Quantal Analysis of the Dose-Response of Mivacurium for Plasma Histamine Increase, Facial Erythema, and Arterial Pressure Decrease.	A527
<i>J. J. Savarese, C. E. Rosow, P. B. Embree, A. F. Schwartz, and S. J. Basta</i>	
Comparison of Spontaneous Recovery and Neostigmine-Accelerated Recovery from Mivacurium Neuromuscular Blockade.	A528
<i>M. J. Curran, L. Shaff, J. J. Savarese, H. H. Ali, and M. Risner</i>	
The Dose-Response Relationship of Mivacurium Under Balanced or Enflurane Anesthesia.	A529
<i>J. E. Caldwell, J. B. Kitts, T. Heier, M. R. Fahey, D. P. Lynam, and R. D. Miller</i>	
The Hemodynamic Effects of Mivacurium Chloride in Patients Undergoing Coronary Artery Bypass Graft During Fentanyl/Valium Anesthesia.	A530
<i>D. Powers, K. Simpson, M. Morici, D. Benchart, T. Maher, and D. J. Torpey</i>	
NEUROSCIENCES AND ANESTHETIC ACTION I	
Effects of 1.4% and 2.8% Isoflurane on Cerebrovascular Responsivity to Carbon Dioxide in Dogs.	A531
<i>R. W. McPherson, J. E. Brian, and R. J. Traystman</i>	
Evolution of Cerebral Blood Flow with Time During 1.4 and 2.8% Isoflurane in Dog.	A532
<i>J. E. Brian, Jr., R. W. McPherson, and R. J. Traystman</i>	
Cerebral Autoregulation Is Impaired During Isoflurane Anesthesia in the Rat.	A533
<i>L. Bunegin, M. S. Albin, R. Hickey, and P. Ernst</i>	
Quantitative Comparison of Cerebral Blood Volume in Rats Receiving Halothane or Isoflurane.	A534
<i>J. J. Katz, M. M. Todd, and D. S. Warner</i>	
The Effect of Isoflurane on Cerebral Blood Flow and Cerebral Blood Volume in the Hypocapnic Baboon.	A535
<i>P. Labrecque, D. P. Archer, E. Meyer, W. F. Casey, and D. Trop</i>	
Effect of Nitrous Oxide on Global and Regional Cerebral Blood Flow in Humans.	A536
<i>S. K. Samra, G. Deutsch, and J. F. Arens</i>	
Nitrous Oxide is a More Potent Cerebral Vasodilator Than Either Halothane or Isoflurane.	A537
<i>T. D. Hansen, D. S. Warner, and M. M. Todd</i>	

Brain Trauma Reverses the Cerebral Vasodilatory Effects of Halothane Combined with Nitrous Oxide in Rats.	A538
<i>X. Q. Yuan, D. S. Prough, and D. S. DeWitt</i>	
Regional Cerebral Blood Flow Following Resuscitation from Hemorrhagic Shock in Dogs with a Subdural Mass.	A539
<i>J. M. Whitley, D. S. Prough, A. K. Lamb, D. D. Deal, and D. S. DeWitt</i>	
Protection by Hyperbaric Oxygen Following Induced Stroke in the Gerbil.	A540
<i>J. A. Reitan, N. D. Kien, G. Corkill, and S. Thorup</i>	
Effects of U-50488H, A Selective Kappa Analgesic, on Cerebral Vascular Responsivity in Dogs.	A541
<i>P. H. Petrozza, W. S. Haddon, and D. S. Prough</i>	
Effects of Nimodipine upon Neurologic Outcome Following Cardiac Arrest in Cats.	A542
<i>A. Tateishi, J. E. Fleischer, J. C. Drummond, M. S. Scheller, M. H. Zornow, M. R. Gafe, and H. M. Shapiro</i>	

NEUROSCIENCES AND ANESTHETIC ACTION II

Clonidine Modulates the Ventrolateral Medullary Catecholaminergic Hyperactivity Induced by Controlled Hypotension.	A543
<i>L. Quintin, J. Y. Gillon, and M. Ghignone</i>	
Renin Angiotensin and Catecholamines Responses to Isoflurane and Enflurane Hypotensive Anesthesia in Humans.	A544
<i>J. M. Bernard, M. Pinaud, J. P. Rémi, I. Maquin-Mavier, and N. Passuti</i>	
Plasma Renin Activity and Catecholamines Changes with Nicardipine or Nitroprusside-Induced Hypotension.	A545
<i>M. Pinaud, M. Babin, J. M. Bernard, I. Macquin-Mavier, and J. P. Rémi</i>	
Isoflurane Blocks Release of Brain Interstitial Fluid Adenosine During Deliberate Hypotension.	A546
<i>M. M. Harris and T. S. Park</i>	
Is Resistance During Hypotension Induced by Isoflurane Due to an Increase in Serum Catecholamines?	A547
<i>M. Guggiari, C. Landault, S. Darnat, A. Bianchi, and P. Viars</i>	
Labetalol and Esmolol in the Control of Hypertension Following Intracranial Surgery.	A548
<i>D. A. Muzzi, R. F. Cucchiara, and S. B. Oliver</i>	

Cerebral Edema After Induced Hypotension: The Effects of Rate of Return of Blood Pressure.	A549
<i>A. W. Gelb, X. Wu, S. Karlik, and S. Lowney</i>	
<i>In Vitro Demonstration of the Efficacy of Hydroxocobalamin in Cyanide Poisoning.</i>	A550
<i>B. Riou, Y. Lecarpentier, V. Toffis, P. Barriot, F. J. Baud, A. Astier, and P. Viars</i>	
Continuous Monitoring of Mixed Venous Oxygen Saturation as an Aid in the Diagnosis of Venous Air Embolism.	A551
<i>G. B. Russell, M. T. Snider, R. B. Russell, T. M. Rutherford, and J. L. Loomis</i>	
Recovery of Exhaled Nitrogen After Venous Air Embolism During Room Air Breathing as a Means to Assess Therapeutic Efficacy.	A552
<i>G. B. Russell, M. T. Snider, R. B. Richard, T. M. Rutherford, and J. L. Loomis</i>	
Prevention of Venous Air Embolism in Neurosurgical Sitting Position by Combination of Lower Body Positive Pressure and PEEP Without Fluid Loading.	A553
<i>P. Schurando, D. Payen, S. Beloucif, B. George, J. L. Raggueau, and E. Echter</i>	
Cerebrovascular and Spinal Cord Dynamics of the Sitting Position.	A554
<i>P. S. Ernst, M. S. Albin, L. Bunegin, D. Levin, and J. Gelineau</i>	

NEUROSCIENCES AND ANESTHETIC ACTION III

Preoperative Sedation with Zolpidem, Midazolam and Placebo: A Randomized Double-Blind Comparison.	A555
<i>J. Pahud, A. Forster, Z. Gamulin, J-P Sauvanet, and E. Tassonyi</i>	
The Effect of Midazolam Pretreatment on Alfentanil-Induced Muscle Rigidity.	A556
<i>T. J. Sanford, Jr., N. T. Smith, M. B. Weinger, J. L. Benthuysen, and N. Head</i>	
Alfentanil-Midazolam by Continuous Infusion: A Total Intravenous Anesthetic Technique for General Surgery.	A557
<i>D. P. Desiderio, A. C. Thorne, N. K. Shah, D. Dwyer, D. Matarazzo, J. Liu, J. Petrek, and D. Kinne</i>	
Thiopental Antagonizes Morphine-Midazolam Hypnotic Synergism.	A558
<i>I. Kissin, P. T. Brown, E. L. Bradley, Jr., and C. H. Salazar</i>	
Midazolam and Fentanyl Interaction in Reducing Enflurane MAC.	A559
<i>I. M. Schwieger, R. I. Hall, and C. C. Hug, Jr.</i>	
Efficacy of Flumazemil Reversal After Midazolam-Induced Anesthesia.	A560
<i>P. Duvaldestin, C. Lebrault, F. Guirimand, and E. Ramibault</i>	

Propofol Versus Thiopental or Methohexital for Induction of Outpatient General Anesthesia.	A561
<i>J. C. Rader and G. Misvar</i>	
Comparison of Propofol and Thiopental Anesthesia in Outpatient Surgery: Speed of Recovery.	A562
<i>Y-F Sung, S. Freniere, T. Tillette, and R. W. Powell</i>	
Propofol Infusion Versus Thiopental/Isoflurane for Outpatient Anesthesia.	A563
<i>R. C. Cork, P. Scipione, M. J. Vonesh, J. L. Magarelli, and R. G. Pittman</i>	
Recovery from Propofol Versus Thiopental-Isoflurane in Patients Undergoing Outpatient Anesthesia.	A564
<i>K. Korttila, E. Faure, J. Apfelbaum, M. Ekdawi, J. Prunskis, and M. Roizen</i>	
Recovery After Outpatient Anesthesia: Propofol Versus Enflurane.	A565
<i>S. K. Pandit, S. P. Kothary, G. I. Randel, and L. Levy</i>	
Outpatient Anesthesia with Propofol: A Comparative Evaluation on Recovery and Psychomotor Performance.	A566
<i>G. Vielle, J. P. Gardaz, M. Germond, and J. Freeman</i>	

NEUROSCIENCES AND ANESTHETIC ACTION IV

Peripheral Vascular Effects of Propofol.	A567
<i>A. Andreev, J. J. Rouby, P. Léger, C. Devilliers, F. Durand, P. Poete, C. Cabrol, and P. Viars</i>	
Hemodynamics and LV Function Response to Propofol Induction.	A568
<i>M. Ben Ammeur, P. Coriat, D. Bruere, J. F. Baron, M. Bertrand, and P. Viars</i>	
Effects of Propofol on Cerebral Hemodynamics and Metabolism in Patients with Head Trauma.	A569
<i>M. Pinaud, J. N. Lelausque, N. Fauchoux, A. Chetanneau, and P. Chomarat</i>	
The Effects of Propofol on ICP and Cerebral Perfusion Pressure in Patients with Brain Tumors.	A570
<i>J. Van Hemelrijck, H. Van Aken, C. Plets, and J. Goffin</i>	
Survival During Severe Hypoxia and Propofol or Ketamine Anesthesia in Mice.	A571
<i>P. D. Varner, H. R. Vinik, and C. Funderburg</i>	
Retrograde Amnesia, Anterograde Amnesia, and Recall by Using Either Thiopental or Propofol as Induction and Maintenance Anesthesia Agents.	A572
<i>Y-F Sung, T. Tillette, S. Freniere, and R. W. Powell</i>	

Propofol in General Anesthesia for I.V.F. (By Vaginal and Transurethral Route)— Follicular Fluid Concentration and Cleavage Rate.	A573
<i>M. Palot, G. Harika, F. Pigeon, D. Lamiable, and J. Rendoing</i>	
Comparison of Propofol and Thiopental Recovery Times and Adverse Reactions After Intravenous Infusion Supplemented by Nitrous Oxide.	A574
<i>L. H. Hanowell, S. G. Soriano, III, D. W. Coalson, A. A. Moore, and W. A. Boyle, III</i>	
Comparison of Sodium Thiopental/Isoflurane to Propofol (Delivered by Means of a Pharmacokinetic Model-Driven Device) for the Induction, Maintenance, and Recovery from Anesthesia.	A575
<i>P. Glass, B. Ginsberg, E. D. Hawkins, K. Markham, and J. R. Jacobs</i>	
Total Intravenous Anesthesia Using Propofol and Alfentanil Infusion in Neurosur- gical Patients.	A576
<i>L. Merckx, J. Van Hemelrijck, H. Van Aken, C. Plets, and J. Goffin</i>	
Thiopentone-Isoflurane Versus Propofol in Neuroanesthesia for Intracranial Sur- gery.	A577
<i>P. Ravussin, M. Berger-Bayer, M. Nydegger, and J. Freeman</i>	
Less Nausea and Vomiting After Propofol Than After Enflurane or Isoflurane Anesthesia.	A578
<i>K. Korttila, E. Faure, J. Apfelbaum, P. Östman, and M. Roizen</i>	
NEUROSCIENCES AND ANESTHETIC ACTION V	
The Influence of Hypervolemia With and Without Induced Hypertension on the Extent of Ischemia Following Middle Cerebral Artery Occlusion in the Rat.	A579
<i>D. J. Cole, J. C. Drummond, H. M. Shapiro, and F. S. Brauer</i>	
Cerebral Ischemic Thresholds During Halothane/N ₂ O and Isoflurane/N ₂ O Anes- thesia.	A580
<i>J-G Zhou, M. M. Todd, and D. S. Warner</i>	
Phenylephrine-Induced Hypertension Decreases the Extent of Ischemia Following Middle Cerebral Artery Occlusion in the Rat.	A581
<i>Y. S. Oh, J. C. Drummond, D. J. Cole, and H. M. Shapiro</i>	
Effect of an Excitatory Amino Acid Antagonist (MK-801) on Neurologic Outcome in a Canine Model of Complete Cerebral Ischemia.	A582
<i>W. J. Perkins, W. L. Lanier, B. W. Scheithauer, J. H. Milde, and J. D. Michenfelder</i>	
Cerebral Blood Flow Distribution in the Rat with Middle Cerebral Artery Occlusion During Deep Isoflurane Versus Pentobarbital Anesthesia.	A583
<i>D. S. Warner, T. D. Hansen, L. H. Vust, D. C. Trawick, and M. M. Todd</i>	

Hyperglycemia and Neurologic Outcome in Patients with Closed Head Injury.	A584
<i>D. S. Prough, L. H. Coker, S. Lee, F. Yates, and J. M. McWhorter</i>	
The Relationship Between EEG and Brain High Energy Metabolites, <i>In Vitro</i> , During Hypoxia.	A585
<i>D. S. Smith, H. Miyake, S. Nioka, A. Zaman, and B. Chance</i>	
Effects of Flumazenil on Cerebral Blood Flow and Intracranial Pressure After Incomplete Cerebral Ischemia in Goats.	A586
<i>E. Kochs, N. Roewer, and J. Schulte am Esch</i>	
The Effect of Midazolam and Gabaergic Inhibition on Anoxic Damage in the Rat Hippocampal Slice.	A587
<i>A. E. Abramowicz, I. S. Kass, J. E. Cottrell, and G. Chambers</i>	
Attenuation of Effects of Global Cerebral Ischemia in a Canine Model.	A588
<i>J. Hutyra, L. Bunegin, M. S. Albin, and K. Bernal</i>	
The Cerebral and Systemic Effects of the Excitatory Amino Acid Receptor Antagonist MK-801 in Dogs: Modification by Prior Complete Cerebral Ischemia.	A589
<i>W. J. Perkins, W. L. Lanier, B. Ruud, J. H. Milde, and J. D. Michenfelder</i>	
Erythromycin Treatment Inhibits Alfentanil Metabolism.	A590
<i>R. R. Bartkowiak, G. E. Larijani, M. E. Goldberg, and T. F. Boerner</i>	

POSTER SESSION II—NEUROSCIENCES AND ANESTHETIC ACTION

The Effect of Sufentanil on Cerebral Hemodynamics During Carotid Endarterectomy.	A591
<i>W. L. Young, I. Prohovnik, J. W. Correll, E. Ornstein, R. S. Matteo, and N. Ostapovich</i>	
Peripheral Vascular Effects of Etomidate.	A592
<i>P. Léger, J. J. Rouby, A. Andreev, M. Arthaud, S. Cheour, F. Durand, C. Cabrol, and P. Viars</i>	
Bioavailability and Absorption of Transdermal Fentanyl.	A593
<i>J. R. Varvel, S. L. Shafer, S. Hwang, P. Coen, and D. R. Stanski</i>	
Increased Fentanyl Requirement in Patients Receiving Long-Term Anticonvulsant Therapy.	A594
<i>R. Tempelhoff, P. Modica, and E. Spitznagel</i>	
Intravenous Anesthesia Using Fentanyl and Benzodiazepine Decreases Functional Activity of Polymorphonuclear Leukocytes in Man.	A595
<i>M. D. Rossignon, D. Khayat, R. Guesde, J. J. Rouby, C. Jacquillat, and P. Viars</i>	

MPV-1440 and BHT-920, Alpha-2 Adrenergic Agonists, Alone Provide Anesthesia.	A596
<i>B. C. Bloor, D. Raybould, M. Shurtliff, S. W. Stead, and D. F. McIntee</i>	
Lack of Malignant Hyperthermia Trigger Activity with Atracurium and Vecuronium in MH-Positive Muscle Biopsy Specimens.	A597
<i>S. N. Glisson, W. Greydanus, P. M. Kober, K. Shah, and J. Kalathiveetil</i>	
A Comparison of EEG Determinants of Near-Awareness During Isoflurane and Fentanyl Anesthesia: Spectral Edge, Median Power Frequency, and Delta Ratio.	A598
<i>C. W. Long, N. K. Shah, G. Wong, J. Spydell, and R. F. Bedford</i>	
Neuromuscular Blockade Does Not Reduce Anesthetic Requirement in the Rat.	A599
<i>N. M. Gibbs, D. R. Larach, and H. G. Schuler</i>	
Reduction of Anesthetic Requirement and Cardiovascular Effects of BHT 920, A Selective Alpha-2 Adrenergic Agonist.	A600
<i>D. Raybould, B. C. Bloor, D. F. McIntee, J. W. Flacke, and W. E. Flacke</i>	
Functional Recovery After Closed Impact Injury to the Spinal Cord Using Dimethyl Sulfoxide and Centrophenoxine.	A601
<i>L. Bunegin, M. S. Albin, J. Martinez, and K. Bernal</i>	
Effects of Increased Alpha-1-Acid Glycoprotein in Cancer Patients on Pharmacokinetics of Alfentanil.	A602
<i>C. Meistelman, J. C. Levrone, J. Barre, M. Bonnay, and J. Truffabachi</i>	
The Thermoregulatory Threshold in Humans During Nitrous Oxide/Fentanyl Anesthesia.	A603
<i>D. I. Sessler, C. I. Olofsson, and E. H. Rubinstein</i>	
Irreversible Opioid Receptor Blockade Decreases the Analgesic Effects of Ketamine and Nitrous Oxide in Mice.	A604
<i>A. D. Finck, E. Samaniego, and S. H. Ngai</i>	
Effect of Halothane on Motor Evoked Potentials.	A605
<i>S. Dubin and E. Yodlowski</i>	
Motor Evoked Potential (MEP) Following Transcranial Magnetic Stimulation in Monkey Anesthetized with Nitrous Oxide, Ketamine, and Thiethylal Sodium.	A606
<i>R. F. Ghaly, J. L. Stone, and J. A. Aldrete</i>	
A Maze Test as a Measure of Recovery From Anesthesia.	A607
<i>I. G. Kestin</i>	
EEG Effects of Thiopental After a Narcotic Induction.	A608
<i>J. E. Cooke and J. C. Schott</i>	

Induction of Anesthesia with Small Doses of Sufentanil or Fentanyl: Dose Versus EEG Response, Speed of Onset, and Thiopental Requirement.	A609
<i>T. A. Bowdle and R. J. Ward</i>	
Further Elucidation of Brain Sites Which Mediate Alfentanil-Induced Muscle Rigidity in the Rat.	A610
<i>M. B. Weinger and G. F. Koob</i>	
Etomidate-Fentanyl Versus Benzodiazepines-Fentanyl for Induction in Patients Undergoing Carotid Endarterectomy.	A611
<i>G. Godet, M. Gosgnach, S. Mouren, B. Gentil, M. Benameur, E. Kieffer, and P. Viars</i>	
Cerebral Effects of Succinylcholine in Dogs Having Disrupted Blood-Brain Barrier.	A612
<i>W. L. Lanier and J. H. Milde</i>	
Anesthetic-Induced Modulation of Phospholipid Hydrolysis By Surface Pressure in a Monolayer Model.	A613
<i>D. M. Goodman, E. M. Nemoto, R. W. Evans, and P. M. Winter</i>	
MPV-1440, An Alpha-2 Adrenergic Agonist with Potent Anesthetic Qualities.	A614
<i>B. C. Bloor, D. Raybould, M. Shurtliff, J. Gellmann, and S. W. Stead</i>	
Solubility of I-653, Sevoflurane, Isoflurane, and Halothane in Human Tissues.	A615
<i>N. Yasuda, A. G. Targ, and E. I. Eger, II</i>	
Anesthetic Properties of Dimethylthiourea, A Hydroxyl Radical Scavenger.	A616
<i>D. D. Koblin and B. W. Tomerson</i>	
ECT-Induced Cardiac Arrhythmias During Anesthesia with Different Barbiturates.	A617
<i>B. L. K. Mokrski, S. E. Nagle, S. M. Cohen, D. E. Meyerson, C. W. Hicks, G. J. Waxman, and M. J. Matjasko</i>	
The Role of Pertussis Toxin-Sensitive G. Proteins in the Anesthetic Action of Halothane In Rats.	A618
<i>I. S. Segal and M. Maze</i>	
Characterization of the Alpha ₂ Adrenoceptor-Effector Mechanism for the Hypnotic Action of MPV-1440 in Rats.	A619
<i>V. Doze, B-X Chen, Z. Li, R. G. Vickery, and M. Maze</i>	

POSTER SESSION VI—NEUROSCIENCES AND ANESTHETIC ACTION

Cerebrovascular Response to CO ₂ in Edematous Brain During Either Fentanyl or Isoflurane Anesthesia.	A620
<i>N. K. Shah, C. W. Long, W. Marx, G. R. DiResta, E. Arbit, C. Mascott, K. Mallya, and R. F. Bedford</i>	

A Comparison of the Effects of Halothane, Isoflurane, or Pentobarbital Anesthesia on Brain Edema Formation After Cryogenic Injury in Rabbits.	A621
<i>R. Kaieda, J. B. Weeks, M. M. Todd, and D. S. Warner</i>	
Prolonged Reduction of Colloid Oncotic Pressure Does Not Increase Brain Edema Following Cryogenic Injury.	A622
<i>J. Kaieda, M. M. Todd, and D. S. Warner</i>	
A Comparison of the Cerebral and Hemodynamic Effects of Mannitol and Hypertonic Saline in a Rabbit Model of Brain Injury.	A623
<i>M. H. Zornow, Y. S. Oh, and M. S. Scheller</i>	
Regional Cerebral Blood Flow During Hypoxemia in Rats Anesthetized with Halothane, Enflurane, or Isoflurane.	A624
<i>M. E. Durieux, C. R. Monk, R. J. Sperry, G. E. Matthern, and D. E. Longnecker</i>	
Does Increased Fl_{O_2} Alter NADH Redox State and Protect Brain Cells From ICP Changes in Rabbits.	A625
<i>B. Bissonnette, P. E. Bickler, G. A. Gregory, and J. W. Severinghaus</i>	
Blood-CSF Barrier Function During General Anesthesia in Children Undergoing Ventriculoperitoneal Shunt Placement.	A626
<i>A. G. Pashayan, J. P. Mickle, T. R. Vetter, S. R. Goodwin, and B. L. Grundy</i>	
Sufentanil, Alfentanil, and Fentanyl: Impact on CSF Pressure in Patients with Brain Tumors.	A627
<i>W. Marx, N. Shah, C. Long, E. Arbit, J. Galicich, C. Mascott, K. Mallya, and R. Bedford</i>	
Effect of Acute Elevation of Intracranial Pressure (CP) on Pulmonary Vasomotor Tone.	A628
<i>C. Schertz, E. R. Cardoso, T. Lanier, S. Nichols, and M. Ghignone</i>	
Influence of Age on the Pharmacokinetics of Alfentanil.	A629
<i>H. J. M. Lemmens, J. G. Bovill, P. J. Hennis, and A. G. L. Burm</i>	
Effects of Alcohol Consumption on the Pharmacodynamics of Alfentanil.	A630
<i>H. J. M. Lemmens, J. G. Bovill, P. J. Hennis, and A. G. L. Burm</i>	
Plasma Concentrations of Sufentanil Required to Suppress Hemodynamic Responses to Noxious Stimuli During Nitrous Oxide Anesthesia.	A631
<i>J. Marty, E. Couderc, F. Servin, P. Lefevre, A. Scardin, J. C. Levron, I. Bouyet, and J. M. Desmonts</i>	
Barbiturate Actions on Single Human Brain Sodium Channels.	A632
<i>C. Frenkel, D. S. Duch, E. Recio-Pinto, and B. W. Urban</i>	

Antagonism of the Potencies of General Anesthetics by RO15-4513, A Benzodiazepine (BDZ) Inverse Agonist.	A633
<i>L. L. Firestone and P. M. Winter</i>	
Different 1.2 MAC Combinations of Nitrous Oxide-Enflurane Produce Specific Metabolic Responses in Rat Spinal Cord.	A634
<i>D. J. Cole and H. M. Shapiro</i>	
Extubation of the Trachea: Lidocaine Revisited.	A635
<i>P. S. Sebel</i>	
Effect of Partial Neuromuscular Blockade on Intraoperative Electromyography in Patients Undergoing Resection of Acoustic Neuroma.	A636
<i>J. O. Welna, S. B. Oliver, J. R. Daube, and R. L. Lennon</i>	
Effects of Pertussis Toxin on Morphine-Halothane Interaction in the Guinea Pig Ileum.	A637
<i>M. M. Puig, W. Warner, C. K. Tang, M. Lovitz, and H. Turndorf</i>	
Anesthetic Optical Isomers Are Equipotent in Desensitizing Acetylcholine Receptors.	A638
<i>L. L. Firestone, J. K. Alifimoff, T. Humphreys, and K. W. Miller</i>	
Percutaneous Recording of Muscle Nerve Sympathetic Activity During Propofol, Nitrous Oxide, and Isoflurane Anesthesia in Man.	A639
<i>J. Sellgren, J. Pontén, and B. G. Wallin</i>	
Modulating Role of Dopamine on Anesthetic Requirements.	A640
<i>I. S. Segal, I. Irwin, and M. Maze</i>	
Transdermal Scopolamine Reduces Postoperative Nausea and Vomiting.	A641
<i>P. L. Bailey, S. J. M. Bubbers, K. A. East, W. F. M. Posthuma, and T. H. Stanley</i>	
Comparative Pharmacodynamics of Midazolam and Diazepam.	A642
<i>M. Bührer, P. O. Maitre, C. Crevoisier, O. Hung, and D. R. Stanski</i>	
Intrathecal Morphine Does Not Reduce the MAC of Halothane in Humans: Results of a Double-Blind Study.	A643
<i>M. G. Licina, A. Schubert, J. E. Tobin, H. F. Nicodemus, and L. Spitzer</i>	
Serotonergic Mediation of Spinal Analgesia and Its Interaction with Noradrenergic Systems.	A644
<i>I. Nakagawa, K. Murata, K. Omote, L. M. Kitahata, and J. G. Collins</i>	
Influence of Halothane on Muscarinic Regulation of G Protein Function (GTPase Activity and Guanine Nucleotide Binding) in Rat Brain.	A645
<i>R. L. Dennison, Jr., T. K. Narayanan, and R. S. Aronstam</i>	

- In Vitro Analysis of Halothane Induced Inhibition of Protein Synthesis.* A646
E. Bedows, R. Sahni, and P. R. Knight

OBSTETRIC ANESTHESIA AND PERINATOLOGY I

- Fetal Accumulation and Plasma Levels of Fentanyl and Alfentanil in the Gravid Ewe.* A647
H. de Sousa, R. L. Kennedy, and R. Stiller
- Maternal and Fetal Suppression of Serum Methionine After Prolonged Exposure to Nitrous Oxide.* A648
T. W. Harmon, A. Santos, G. Wirt, M. Finster, and T. B. Cooper
- Epidural Fentanyl and Lidocaine During Cesarean Section: Maternal Efficacy and Neonatal Safety Using Impedance Monitoring.* A649
T. S. Schlesinger and D. J. Miletich
- Fetal Catecholamines and Uterine Incision-to-Delivery Interval.* A650
A. M. Bader, S. Datta, E. Benvenuti, M. Courtney, M. Hauch, G. R. Arthur, and G. W. Ostheimer
- Neonatal Pattern of Breathing After Cesarean Section With or Without Epidural Fentanyl.* A651
M. Benlabed, M. Midgal, E. Dreizzen, P. Escourrou, C. Ecoffey, and C. Gaultier
- Intravenous Administration of *d*-Tubocurarine and Pancuronium in Fetal Lambs.* A652
D. H. Chestnut, C. P. Weiner, C. S. Thompson, and G. L. McLaughlin
- Is Newborn Jaundice Associated with Maternal Epidural Bupivacaine?* A653
T. G. Cheek, F. Storniolo, R. Banner, L. Kricka, T. Asakura, and B. B. Gutsche
- Regional Anesthesia for Preterm Labor and Vaginal Delivery: Effects on the Fetus and Neonate.* A654
R. G. Wright, S. M. Shnider, A-V Thirion, C. P. Messer, and M. A. Rosen

OBSTETRIC ANESTHESIA AND PERINATOLOGY II

- Incidence of Venous Air Embolism During Cesarean Section.* A655
J. Fong, F. Gadalla, M. K. Pierri, H. Koff, and J. F. Artusio, Jr.
- Lack of Effect of Cimetidine and Ranitidine on Lidocaine Disposition in the Parturient.* A656
R. J. Flynn and J. Moore

Transnasal Analgesics: A New Method for Pain Relief in Post-Cesarean Section Patients.	A657
<i>T. K. Abboud, J. Zhu, J. Gangolly, M. Longhitano, F. Swart, P. Silao, A. Makar, R. Zeman, G. Chu, M. Cool, M. Mantilla, N. Kurtz, and L. Reich</i>	
Reconsideration of the Mechanisms of Nitrous Oxide Teratogenicity.	A658
<i>M. Fujinaga, R. I. Mazze, and J. M. Baden</i>	
Risks of Placenta Previa/Accreta in Patients with Previous Cesarean Deliveries.	A659
<i>T. Arcario, M. Greene, G. W. Ostheimer, S. Datta, and J. S. Naulty</i>	
Effect of Changes in Labor Analgesic Practice on Labor Outcome.	A660
<i>J. S. Naulty, R. Smith, and R. Ross</i>	
Adverse Reproductive Outcomes Following Anesthesia and Operation During Pregnancy: A Swedish Registry Study, 1973–1981.	A661
<i>R. I. Mazze and B. Kallen</i>	
The Effect of Anesthesia on Outcome Following Gamete Intra-Fallopian Transfer (GIFT).	A662
<i>A. Hood, J. Brown, S. Haddy, and R. Marrs</i>	
Follicular Concentration of Fentanyl During Laparoscopy for Oocyte Retrieval. Correlation with <i>In Vitro</i> Fertilization Results.	A663
<i>P. F. Schoeffler, J. C. Levron, L. Jany, F. J. Brenas, and J. L. Pouly</i>	
Evaluation of Informed Consent for Anesthesia for Labor and Delivery.	A664
<i>S. C. Grice, J. C. Eisenach, D. M. Dewan, and M. L. Robinson</i>	
Prophylactic Epidural Blood Patch in Obstetrics.	A665
<i>P. Colonna-Romano and B. E. Shapiro</i>	
Transderm SCOP® Decreases Post-Cesarean Nausea and Vomiting in Patients Receiving Epidural Morphine.	A666
<i>D. M. Kotelko, R. L. Rottman, W. C. Wright, J. J. Stone, A. Y. Yamashiro, and R. M. Rosenblatt</i>	
OBSTETRIC ANESTHESIA AND PERINATOLOGY III	
The Influence of pH-Adjusted 2-Chloroprocaine on the Quality and Duration of Subsequent Epidural Bupivacaine Analgesia During Labor: A Randomized, Double-Blind Study.	A667
<i>D. H. Chestnut, M. W. Geiger, J. N. Bates, and W. W. Choi</i>	
Effect of 2-Chloroprocaine Test Dosing on the Subsequent Duration of Labor Analgesia with Epidural Bupivacaine-Fentanyl-Epinephrine.	A668
<i>S. C. Grice, J. C. Eisenach, and D. M. Dewan</i>	

Evaluation of Lidocaine as an Intravenous Test Dose for Epidural Anesthesia.	A669
<i>K. J. Roetman and J. C. Eisenach</i>	
Spinal Anesthesia with Hyperbaric Bupivacaine for Cesarean Section: A Comparison of Two Doses.	A670
<i>C. A. Desimone, M. C. Norris, B. Leighton, R. Epstein, C. Palmer, S. Kaplan, and D. Goodman</i>	
The Effect of Intravenously Administered 2-Chloroprocaine upon Uterine Artery Blood Flow Velocity in Gravid Guinea Pigs.	A671
<i>D. H. Chestnut and C. P. Weiner</i>	
Lidocaine Toxicity in Pregnant Sheep.	A672
<i>H. O. Morishima, M. Finster, G. R. Arthur, and B. G. Covino</i>	
Local Anesthetics Interaction with Hypoxia, Hypercarbia-Induced Acidosis and Histamine on Umbilical Vascular Reactivity.	A673
<i>S. Halevy, E. Monuszko, K. J. Freese, and B. M. Altura</i>	
The Influence of a 2-Chloroprocaine Metabolite on the Cardiotoxic Effects of Bupivacaine.	A674
<i>B. C. Corke, L. S. Carter, F. J. Spielman, and R. A. Mueller</i>	
Progesterone-Induced Increase in Cardiac Sensitivity to Bupivacaine.	A675
<i>R. A. Moller, S. Datta, J. Fox, M. Johnson, and B. G. Covino</i>	
Effect of Exogenously Administered Progesterone on Susceptibility of Rabbit Vagus Nerves to Bupivacaine.	A676
<i>H. L. Flanagan, S. Datta, R. A. Moller, and B. G. Covino</i>	
Cardiovascular, Catecholamine, and AVP Response to Cyclic ICP Oscillation in Fetal Sheep.	A677
<i>A. P. Harris, R. C. Koehler, M. D. Jones, and R. J. Traystman</i>	
Metoclopramide Exaggerates Stress-Induced Tachycardia.	A678
<i>J. C. Eisenach, J. C. Rose, M. I. Castro, and D. M. Dewan</i>	

OBSTETRIC ANESTHESIA AND PERINATOLOGY IV

Epidural Fentanyl Significantly Decreases Nausea and Vomiting During Uterine Manipulation in Awake Patients Undergoing Cesarean Section.	A679
<i>W. E. Ackerman, M. M. Juneja, G. W. Colclough, and D. M. Kaczorowski</i>	
Intrathecal Narcotics for Labor Revisited: Fentanyl 25 mcg and Morphine 0.25 mg Provide Rapid, Profound Analgesia.	A680
<i>B. L. Leighton, C. A. DeSimone, M. C. Norris, and B. Ben-David</i>	

Prolongation of Postoperative Sufentanil Analgesia with Epinephrine. <i>S. E. Dickerson, D. E. Robinson, and C. H. Leicht</i>	A681
Comparison of Epidural Fentanyl Via Bolus With or Without Continuous Infusion After Cesarean Section. <i>C. F. James, C. E. Banner, P. G. Hanna, J. Rost, and D. Caton</i>	A682
Continuous Naloxone Infusion Following Epidural Morphine: A Dose-Response Study. <i>M. Y. Daly, A. M. Woods, and C. A. DiFazio</i>	A683
Epidural Morphine or Butorphanol Augments Bupivacaine Analgesia During Labor. <i>T. K. Abboud, A. Afrasiabi, J. Zhu, M. Mantilla, A. Reyes, L. D'Onofrio, N. Khoo, P. Mosaad, M. Richardson, M. Kalra, M. Cheung, and R. Paul</i>	A684
Effect of Diluting Fentanyl on Epidural Bupivacaine During Labor Analgesia. <i>P. Dailland, J. D. Lirzin, P. Jacquinot, J. C. Jorrot, and C. Conseiller</i>	A685
Continuous Epidural Infusion of Low-Dose Bupivacaine-Fentanyl for Labor Analgesia. <i>P. Youngstrom, M. Sedensky, D. Frankmann, and S. Spagnuolo</i>	A686
Continuous Epidural Infusion of Alfentanil and Bupivacaine for Labor and Delivery. <i>H. Carp, M. D. Johnson, A. M. Bader, S. Datta, and G. W. Ostheimer</i>	A687
Body Temperature Changes with Epidural and Intrathecal Morphine. <i>J. Bernstein, S. Ramanathan, K. Ramabadran, F. Parker, and H. Turndorf</i>	A688
The Effect of pH Adjusting 3% 2-Chloroprocaine on the Quality of Post-Cesarean Section Analgesia with Epidural Morphine. <i>S. C. Hughes, R. G. Wright, D. Murphy, P. Preston, W. Hughes, M. Rosen, and S. Shnider</i>	A689
Patient-Controlled Epidural Analgesia (PCA) During Labor: A Comparison of Three Solutions with Continuous Epidural Infusion (CEI) Control. <i>S. Z. Lysak, J. C. Eisenach, and C. E. Dobson, II</i>	A690

OBSTETRIC ANESTHESIA AND PERINATOLOGY V

Oxygen Saturation in Patients the Night Prior to and the Night After Cesarean Section During Epidural Morphine Analgesia. <i>L. P. Östman, C. L. Owen, J. N. Bates, F. L. Scamman, and K. Davis</i>	A691
--	------

Incidence of Ischemic ECG Changes During Cesarean Section Under General Anesthesia.	A692
<i>C. M. Palmer, M. C. Norris, M. C. Guidici, B. L. Leighton, and C. A. DeSimone</i>	
Maternal Blood Loss Associated with Low-Dose Halothane Administration for Cesarean Section.	A693
<i>A-V Thirion, R. G. Wright, C. P. Messer, M. A. Rosen, and S. M. Shnider</i>	
Correlation Between Bleeding Times and Platelet Counts in Preeclamptic Women Undergoing Cesarean Section.	A694
<i>J. Ramanathan, B. M. Sibai, T. Vu, and D. Chauhan</i>	
The Effect of Pregnancy on the Nervous System Response to Sensory Stimulation.	A695
<i>F. B. Sevarino, L. I. Gilbertson, L. D. Gugino, M. A. Courtney, and S. Datta</i>	
MgSO ₄ and EEG Effects in Preeclampsia.	A696
<i>B. L. K. Mokriski, A. M. Malinow, D. G. Martz, and M. J. Matjasko</i>	
Effects of Preeclamptic Pregnancy and Magnesium on Plasma Cholinesterase Activity.	A697
<i>J. R. Kambam, S. M. Perry, S. Entman, and B. E. Smith</i>	
Does Intravenous Infusion of Ritodrine or Magnesium Sulfate Alter the Hemodynamic Response to Hemorrhage in Gravid Ewes.	A698
<i>D. H. Chestnut, C. S. Thompson, G. L. McLaughlin, and J. P. Wang</i>	
Magnesium Sulfate Resembles a Calcium Channel Blocker in Airway Smooth Muscle.	A699
<i>K. S. Lindeman, C. A. Hirshman, and A. N. Freed</i>	
Calcitonin-Gene Related Peptide as Potent Dilator in Isolated Human Uterine Arteries.	A700
<i>S. H. Nelson and M. S. Suresh</i>	
Warm Intravenous Fluids Reduce Shivering in Parturients Receiving Epidural Analgesia.	A701
<i>L. S. Aglio, M. D. Johnson, S. Datta, and G. W. Ostheimer</i>	
CO ₂ Sensitivity Following Epidural Sufentanil in Cesarean Section Patients.	A702
<i>T. Labaille, D. Benhamou, J. C. Levron, and S. E. Cohen</i>	

OBSTETRIC ANESTHESIA AND PERINATOLOGY VI

Atrial Natriuretic Peptide in Maternal and Umbilical Cord Blood During Elective Cesarean Section.	A703
<i>M. D. Johnson, S. Datta, M. Murphy, D. Carr, and G. W. Ostheimer</i>	

Umbilical Artery Flow Velocity Waveforms Before and During Epidural Anesthesia for Cesarean Section.	A704
<i>P. Youngstrom, J. C. Veille, C. Kanaan, and B. Wilson</i>	
Maternal Hemodynamic Effects of Epinephrine Added to Local Anesthetics.	A705
<i>G. J. Grant, S. Ramanathan, and H. Turndorf</i>	
Ephedrine Sulfate as the Intravenous Component of the Epidural Analgesia Test Dose in Laboring Parturients.	A706
<i>J. Fong, F. Gadalla, S. A. Fiamengo, M. Druzin, and J. F. Artusio, Jr.</i>	
Doppler Measurement of Cardiac Output During Cesarean Section Under Spinal Anesthesia: Comparison of Prophylactic im Ephedrine to Therapeutic iv Bolus Ephedrine.	A707
<i>J. I. Parker, W. L. Millar, and L. S. Reisner</i>	
Maternally Administered Esmolol Produces Fetal β -Blockade and Hypoxemia.	A708
<i>M. I. Castro and J. C. Eisenach</i>	
Neonatal Outcome and Lidocaine Absorption Following Awake, Fiberoptic Intubation of the Parturient.	A709
<i>R. Glassenberg, N. Vaisrub, and R. Arthur</i>	
PCA: Is It Cost Effective When Used for Postoperative Pain Management?	A710
<i>E. L. Ross and P. Perumbeti</i>	
Use of Sedative Infusions During Local and Regional Anesthesia—A Comparison of Midazolam and Propofol.	A711
<i>J. B. Negus and P. F. White</i>	
Blood Levels of 0.75% Bupivacaine Following Arthroscopy of the Knee Joint.	A712
<i>G. Wasudev, T. Limbird, R. England, W. Wright, and B. E. Smith</i>	
Anesthesia for Extracorporeal Shock Wave Lithotripsy in Spinal Cord Injury Patients.	A713
<i>P. S. Warheit and A. V. Guffin</i>	
Sympathetic Block Does Not Improve Tactile Sensitivity in Patients with Reflex Sympathetic Dystrophy.	A714
<i>S. F. Seltzer, J. L. Seltzer, J. Lessin, and R. Woo</i>	

PATIENT SAFETY AND RISK MANAGEMENT I

Estimated Risk of Postoperative Pulmonary Complications in Relation to General and Regional Anesthesia.	A715
<i>C. Ringsted, T. Pedersen, K. Eliasen, and E. Henriksen</i>	

Regional Versus General Anesthesia for Patients \geq 90 Years of Age Undergoing Total Hip Arthroplasty or Transurethral Prostate Resection: Perioperative Morbidity and Mortality and Long-Term Outcome.	A716
<i>M. P. Hosking, M. A. Warner, C. M. Lobdell, K. P. Offord, and L. J. Melton, III</i>	
Initial Clinical Trials of a Computerized "HealthQuiz" to Suggest Preoperative Laboratory Tests.	A717
<i>J. Apfelbaum, M. F. Roizen, C. Stocking, G. Rupani, R. Roberts, K. Rangachari, A. Grogono, M. Texidor, B. Schreider, T. Krizek, M. Delisi, P. White, and A. Thisted</i>	
Pediatric Complications in the Postoperative Period: Not a Small Problem.	A718
<i>C. Bell, R. Hines, P. Barash, G. Watrous, and T. O'Connor</i>	
Factors Associated with Unanticipated Hospital Admission Following Ambulatory Surgery: A Case-Control Study.	A719
<i>B. Gold, D. S. Kitz, J. H. Lecky, and J. M. Neuhaus</i>	
The Response of Anesthesia Trainees to Simulated Critical Incidents.	A720
<i>D. M. Gaba and A. DeAnda</i>	
Perioperative Mortality and Major Morbidity in ASA Physical Status I and II Patients Undergoing Non-Emergent Procedures: 1985–1987.	A721
<i>M. A. Warner, M. E. Warner, and B. J. Narr</i>	
Peer Review of Anesthetic Mishaps: Effect of Severity of Injury.	A722
<i>R. A. Caplan, K. Posner, R. J. Ward, and F. W. Cheney</i>	

PATIENT SAFETY AND RISK MANAGEMENT II

Effects of Different Aspiration Techniques on Glass Contamination in Single-Dose Ampules.	A723
<i>R. L. Sabon, Jr., E. Y. Cheng, K. A. Stommel, and C. R. Hennen</i>	
Relative Perforating Potential of Central Venous Catheters: Effect of Number of Lumens.	A724
<i>R. H. Blackshear and N. Gravenstein</i>	
Difficult Intubation for Cervical Spine Surgery: Airway Assessment with Magnetic Resonance Imaging.	A725
<i>D. Bouquet, M. Boukobza, M. Metzger, R. Roy-Camille, and P. Viars</i>	
Lack of Availability of Dantrolene in American Surgical Facilities—An Estimate of Associated Mortality.	A726
<i>H. A. T. Hein</i>	

Hemodynamic Monitoring During Autologous Blood Donation for High-Risk Patients.	A727
<i>B. D. Spiess, R. F. Narbone, K. J. Tuman, R. J. McCarthy, R. Sasseti, and A. D. Ivankovich</i>	
Meta-Analysis, New Graphical/Statistical Techniques for Answering Crucial Anesthetic Outcome Questions: The Prevention of Succinylcholine Myalgias.	A728
<i>N. L. Pace</i>	
Nasopharyngeal Insufflation of Oxygen Prevents Hypoxia in Apneic Patients.	A729
<i>L. E. Teller, C. M. Alexander, J. B. Gross, and M. J. Frumin</i>	
Recoil of Inflation Syringe Plunger Limits Excessive Endotracheal Tube Cuff Pressure.	A730
<i>N. Gravenstein and N. Burwick</i>	
Expert Alarms and Autopilot in an Anesthesia Workstation.	A731
<i>D. R. Westenskow, R. G. Loeb, J. X. Brunner, and N. L. Pace</i>	
Unattended, Real-Time Monitoring for Venous Air Emboli by a Computerized Doppler System.	A732
<i>G. L. Gibby</i>	
Oral H ₂ Antagonist Prophylaxis with Famotidine on the Morning of Surgery.	A733
<i>C. A. Swift, H. D. Dubow, and D. G. Silverman</i>	
Prevention of Contamination of the Concha™ Humidifier.	A734
<i>T. E. Hansen, R. Middaugh, E. Menk, and D. Dooley</i>	
PEDIATRIC ANESTHESIA I	
The Effect of Cardiopulmonary Bypass on Cerebral Blood Flow in Infants and Children.	A735
<i>W. J. Greeley, F. G. Brusino, R. M. Ungerleider, L. R. Smith, and J. G. Reves</i>	
The Effects of Increased Intra-abdominal Pressure on Hepatic and Splanchnic Blood Flow During Isoflurane Anesthesia in Newborn Piglets.	A736
<i>J. L. Canose, P. J. Davis, D. R. Cook, and C. M. Roeber</i>	
Congenital Heart Malformations and Uptake of Isoflurane.	A737
<i>S. G. E. Lindahl, R. A. Van Dyke, M. D. Abel, and H. S. Raimundo</i>	
5% and 10% Dextrose Intravenous Solutions During Neonatal Surgery.	A738
<i>S. C. Hall, H. J. Przybylo, and A. G. Roth</i>	

Blood Glucose Concentrations During Anesthesia in Children Undergoing Hypothermic Circulatory Arrest.	A739
<i>H. A. Zucker, S. C. Nicholson, J. M. Steven, D. R. Jobes, and M. K. Betts</i>	
Fentanyl Reduces Hyperglycemia in Pediatric Patients Undergoing Hypothermic Cardiopulmonary Bypass.	A740
<i>D. J. Ellis, T. F. Flegel, and D. J. Steward</i>	
A Comparison of Propofol with Thiopentone for Induction of Anesthesia in Unpremedicated Children.	A741
<i>A. E. E. Meursing, B. Bell, R. Lobatto, and W. Erdmann</i>	
Rectally Administered Midazolam for Preinduction Sedation and Induction of General Anesthesia in Small Children.	A742
<i>R. M. Spear, M. Yaster, J. K. Deshpande, R. C. Wetzel, and D. G. Nichols</i>	
PEDIATRIC ANESTHESIA II	
Parents' Presence During Induction of Anesthesia in Children: Parents' Viewpoint.	A743
<i>A. J. Smerling, I. Lieberman, and P. Rothstein</i>	
When Is Outpatient Surgery Safe in Preterm Infants?	A744
<i>P. H. Mestad, J. A. Glenski, and R. E. Binda, Jr.</i>	
Premedication in Children: Oral Versus Intramuscular Midazolam.	A745
<i>L. H. Feld, M. L. Urquhart, W. W. Feaster, and P. F. White</i>	
Postoperative Emesis After Pediatric Strabismus Surgery: The Effect of Dixyrazine Compared to Droperidol.	A746
<i>S. Larsson and C. Jonmarker</i>	
Metoclopramide Reduces the Incidence of Vomiting Following Strabismus Surgery in Children.	A747
<i>L. M. Broadman, W. Cerruzi, P. S. Patane, R. S. Hannallah, U. Ruttiman, and D. Friendly</i>	
Effects of Metoclopramide and Ranitidine on Gastric Fluid pH and Volume in Children.	A748
<i>J. Lerman, S. K. Christensen, and A. C. Farrow-Gillespie</i>	
Intravenous Lidocaine Does Not Prevent Postoperative Vomiting in Children Undergoing Strabismus Surgery.	A749
<i>M. Heard, E. Adler, and P. Gibbons</i>	
Metabolic and Hemodynamic Effects of Midazolam in Critically Ill Infants.	A750
<i>O. E. Mohan, M. B. Hershenson, J. A. Schena, and R. K. Crone</i>	

Does Atropine Improve Myocardial Performance During Halothane and Isoflurane Anesthesia in Infants?	A751
<i>D. J. Murray, R. B. Forbes, D. L. Dull, and L. T. Mahoney</i>	
Cardiovascular Effects of Rectal Methohexitol in Children.	A752
<i>R. B. Forbes, D. L. Dull, D. J. Murray, and K. L. Croskey</i>	
The Role of Caffeine in the Prevention of Postoperative Apnea in Former Premature Infants: If Some Is Good, Is More Better?	A753
<i>L. G. Welborn, R. S. Hannallah, R. Fink, and J. M. Hicks</i>	
Isoflurane Blunts Baroreflex Control of Heart Rate in Human Neonates.	A754
<i>I. Murat, G. Lapeyre, and Cl. Saint-Maurice</i>	

PEDIATRIC ANESTHESIA III

Protein Binding of Thiopental in the Neonate.	A755
<i>H. Kingston, A. Kendrick, H. Downes, W. Krasselt, and G. Olsen</i>	
Clearance of Fentanyl in Neonatal Humans and Lambs: Effects of Age.	A756
<i>I. S. Gauntlett, D. M. Fisher, R. E. Hertzka, E. Kuhls, M. J. Spellman, and C. Rudolph</i>	
Pharmacokinetics of 2% Rectal Methohexitol in Children.	A757
<i>R. B. Forbes, D. J. Murray, J. B. Dillman, D. L. Dull, K. L. Croskey, and K. Murphy</i>	
Alfentanil Pharmacokinetics in Premature Infants and Older Children.	A758
<i>P. J. Davis, A. Killian, R. L. Stiller, D. R. Cook, and R. D. Guthrie</i>	
Alfentanil Pharmacokinetics in Children with Cholestatic Liver Failure.	A759
<i>P. J. Davis, R. L. Stiller, D. R. Cook, J. E. Davis, and A. M. Scierka</i>	
Pharmacodynamics of Vecuronium Bromide in Anesthetized Neonates, Infants, and Children.	A760
<i>H. C. Schippers, B. Bell, W. Erdmann, and R. G. Jackson</i>	
Dose Response Curve of Vecuronium Bromide in Anesthetized Neonates, Infants, and Children.	A761
<i>H. C. Schippers, B. Bell, W. Erdmann, and R. G. Jackson</i>	
Histamine Release After Atracurium in Children.	A762
<i>P. Caruso, Z. Moszczynski, S. Ramanathan, and H. Turndorf</i>	
Caudal Epidural Morphine in Children: A Comparison of Three Doses.	A763
<i>E. J. Krane, L. E. Jacobson, and D. C. Tyler</i>	

Comparison of Plasma Blood Levels of Bupivacaine After Caudal Injection of 0.25% and 0.375% Solutions with 1:200,000 Epinephrine.	A764
<i>T. D. E. Sharpe, G. V. Goresky, and M. A. Sabourin</i>	
Oxygen Uptake, Body, Skin, and Room Temperatures in Anesthetized Infants and Children.	A765
<i>S. G. E. Lindahl, E. J. Grigsby, D. M. Meyer, and F. M. K. Beynen</i>	
Gas Exchange in Anesthetized Infants and Children with Congenital Heart Malformations.	A766
<i>E. J. Grigsby, F. M. Beynen, and S. G. E. Lindhal</i>	
PEDIATRIC ANESTHESIA IV	
Administration of Nitrous Oxide to Pediatric Patients Provides Analgesia for Venous Cannulation.	A767
<i>J. M. Henderson, D. G. Spence, L. M. Komocar, G. E. Bonn, and R. J. Stenstrom</i>	
A Comparison of Methadone and Morphine for Postoperative Analgesia in Children and Adolescents.	A768
<i>C. B. Berde, R. S. Holzman, N. F. Sethna, R. B. Dickerson, and R. M. Brustowicz</i>	
Criteria for Safe Ambulation Following Caudal Block in Children.	A769
<i>S. Saint-Raymond, F. O'Donovan, and C. Ecoffey</i>	
Testing the Validity of an Objective Pain Scale for Infants and Children.	A770
<i>L. M. Broadman, L. J. Rice, and R. S. Hannallah</i>	
Timing of Caudal Block Placement Does Not Affect Duration of Postoperative Analgesia in Pediatric Ambulatory Surgical Patients.	A771
<i>L. J. Rice, M. A. Pudimat, and R. S. Hannallah</i>	
Recovery Room Initiation of Patient-Controlled Analgesia in Pediatric Patients.	A772
<i>L. J. Means, H. M. Allen, S. J. Lookabill, and G. Krishna</i>	
Effect of Spinal Anesthesia on Chest Wall Displacements in Infants.	A773
<i>R. C. Pascucci, M. B. Hershenson, N. F. Sethna, and A. R. Stark</i>	
Efficacy of an Epidural Test Dose in Children Anesthetized with Halothane.	A774
<i>J. Desparmet, J. Mateo, C. Ecoffey, and J. X. Mazoit</i>	
Airway Complications of Endotracheal Intubation in Pediatric Patients: Effect of Endotracheal Tube Fit.	A775
<i>J. V. DiCarlo, A. I. Sanders, and M. F. Sweeney</i>	

Mouth to Carina Distance in Pediatric Patients—Correlation with Physical Characteristics.

A776

K. D. Ossey, E. C. Bloch, and B. Ginsberg

Alveolar Deadspace Ventilation Does Not Affect Noninvasive Determinations of Widely Variable Cardiac Output in Young Pigs.

A777

J. M. Badgwell and J. E. Heavner

Intraoperative Echocardiography and Color Flow Imaging During Pediatric Cardiovascular Anesthesia and Surgery.

A778

W. J. Greeley, R. M. Ungerleider, T. Stanley, and J. A. Kisslo

PEDIATRIC ANESTHESIA V

The Rise of Arterial Carbon Dioxide During Apnea in Children.

A779

J. D. Emhardt, E. C. Weisberger, S. F. Dierdorf, T. M. Wolfe, and B. B. Conard

Catecholamine and Hemodynamic Responses to Hypercarbia in Infants.

A780

D. L. Wessel, K. J. S. Anand, and P. R. Hickey

Changes in Oxygen Saturation During Isoflurane Anesthesia in Children.

A781

P. M. Crean, M. M. Sampaio, S. R. Keilty, and G. W. Black

Effects of Induction of Anesthesia with Halothane on Respiratory Mechanics in Infants.

A782

D. Shulman, A. Goodman, J. Lerman, S. J. England, A. C. Bryan, and G. A. Volgyesi

Applicability and Safety of Low Flow Closed Circuit Anesthesia in Pediatrics.

A783

A. S. Pappas, E. Santos, R. Sukhani, and J. A. Aldrete

Pressure-Volume Curves of the Total Respiratory System in Anesthetized and Paralyzed Children.

A784

A. Thorsteinsson, C. Jonmarker, A. Larsson, and O. Werner

A Comparison of Ventilation in Spontaneously Breathing Infants and Children Using a Pediatric Circle or a Mapleson F System at Different Fresh Gas Flows.

A785

J. P. Conterato, S. G. E. Lindahl, D. M. Meyer, and J. A. Bires

Airway Resistance Caused by a Pediatric Heat and Moisture Exchanger.

A786

B. R. Jones, G. T. Ozaki, J. L. Benumof, and L. J. Saidman

V_D/V_T , Qs/Qt , and the End-Tidal to Arterial P_{CO_2} Gradient.

A787

F. A. Burrows

Ventilatory Response to CO ₂ Following Intravenous Ketamine in Children. <i>J. Hamza and C. Ecoffey</i>	A788
The Cardiovascular Effects of Hypoxia During Isoflurane Anesthesia in Lambs. <i>C. M. Brett, D. F. Teitel, M. A. Heymann, and A. M. Rudolph</i>	A789
Observer Reliability When Detecting Simulated Apnea with a Monaural Esophageal Stethoscope. <i>J. O. Cooper and B. F. Cullen</i>	A790

RESEARCH IN EDUCATION AND EPIDEMIOLOGY I

Effect of Educational Objectives on Junior Medical Student Learning During Two Week Anesthesia Clerkships. <i>R. P. From, W. W. Choi, M. A. Albanese, J. R. Moyers, J. Dillman, F. L. Scamman, and K. S. Pearson</i>	A791
Evaluating the Content of Clinical Conferences: Is It a Different Knowledge Base? <i>C. L. Furgerson and M. F. Rhoton</i>	A792
Sources of Stress in Beginning Anesthesia Residents. <i>S. L. Polk, H. B. Triplett, and L. M. Newman</i>	A793
Does Length of Training Impact on Postanesthesia Recovery Room Complication Rate? <i>A. Mandel, R. Hines, and P. Barash</i>	A794
The Most Frequent Clinical Performance Problems During Residency Training in Anesthesiology at Five Institutions. <i>F. Rhoton, A. Barnes, M. Flashburg, A. Ronai, and S. Springman</i>	A795

Education and Patient Safety: Increasing Resident Awareness of Common Anesthetic Misadventures. <i>G. E. Deboer, W. G. Maurer, and M. F. Rhoton</i>	A796
--	------

Critical Performance Requirements for Anesthesiology Residency. <i>H. B. Triplett, S. Wilson-Pessano, S. Vintilla-Friedman, R. Levine, and G. Marshall</i>	A797
---	------

Which Procedural Skills Should Be Learned by Anesthesiology Residents? <i>F. J. Spielman, K. J. Levin, J. A. Matherly, and C. K. Waterson</i>	A798
--	------

RESEARCH IN EDUCATION AND EPIDEMIOLOGY II

Halothane Anesthesia Causes Active Pulmonary Vasoconstriction Compared to That Measured in Conscious Dogs. <i>B. B. Chen, D. P. Nyhan, H. M. Goll, D. M. Fehr, and P. A. Murray</i>	A799
--	------

The Distribution of Pulmonary Vascular Resistance: Effects of Hypoxia and Halothane.	A800
<i>S. Kowalski, G. Dobson, M. Hoppensack, and L. Oppenheimer</i>	
Are Regional Wall Motion Abnormalities Detected by Transesophageal Echocardiography Triggered by Acute Changes in Supply and Demand?	A801
<i>J. Leung, B. O'Kelly, W. Browner, J. Tubau, and D. T. Mangano</i>	
Comparison of Right Ventricular Functions Between High Frequency Positive Pressure Ventilation and Conventional Ventilation in Coronary Artery Bypass Surgery.	A802
<i>M. Nakatsuka and J. Vincent</i>	
Analysis of Anesthetics as Reported in the Biomedical Literature.	A803
<i>L. J. Saidman, M. S. Scheller, and T. C. Thomas</i>	
Performance Profiles of Anesthesiology Residents with the Largest Number of Critical Incidents During Training.	A804
<i>F. Rhoton</i>	
Training Residents in Fiberoptic Intubation in the Operating Room.	A805
<i>A. El-Ganzouri, N. El-Baz, E. Ford, P. Murphy, S. Badrinath, B. Braverman, and A. D. Ivankovich</i>	
A Computer Database of Educational Resources in Anesthesiology.	A806
<i>K. W. Smith, V. R. Smith, and B. K. Smith</i>	
Subspecialty Education in Anesthesia Residency Programs in the United States.	A807
<i>L. M. P. Liu and C. B. Watson</i>	
Cognitive Components of a Clinical Decision in Cardiac Anesthesia: A Facet Analysis.	A808
<i>J. R. Purgess, E. Solomon, S. Efthimiades, and H. Turndorf</i>	
Should Anesthesia Residencies Teach Psychological Skills?	A809
<i>H. L. Bennett and J. C. Erickson, III</i>	
A Cost-Effective Computer Aid for Resident Clinical Competence Assessment.	A810
<i>J. M. Watkins-Pitchford and A. C. D. Brown</i>	

RESPIRATION I

Centrally Mediated Depressive Effect of Hypoxia During Halothane Anesthesia.	A811
<i>M. Kamide, S. Kagawa, Y. Tanifugi, and K. Kobayashi</i>	

The Comparative Ventilatory Effects of Morphine, Morphine-3-, and Morphine-6-Glucuronide in the Awake Dog.	A812
<i>D. A. Pelligrino, F. X. Riegler, and R. F. Albrecht</i>	
Respiratory Effects of Midazolam and Fentanyl: Potent Interaction Producing Hypoxemia and Apnea.	A813
<i>P. L. Bailey, J. W. B. Moll, N. L. Pace, K. A. East, and T. H. Stanley</i>	
The Time Course of Respiratory Depression After Alfentanil Anesthesia: A Detailed Evaluation.	A814
<i>M. E. Goldberg, R. R. Bartkowski, J. L. Seltzer, C. T. Mora, M. Torjman, T. F. Boerner, J. L. Lessin, A. T. Marr, and G. E. Larijani</i>	
Effect of RO 15-1788 (Flumazenil) on the CO ₂ Responsiveness After Midazolam-Fentanyl Anesthesia.	A815
<i>Ph. Dailland, J. D. Lirzin, E. Jugan, P. Jacquinot, J. C. Jorrot, and Ch. Conseiller</i>	
Evaluation of Hypoxic and of Hypercapnic Responses After A-4492.	A816
<i>E. M. Camporesi, P. S. A. Glass, R. E. Moon, and J. G. Reeves</i>	
Ventilatory Effects of Flumazenil on Midazolam-Induced Sedation.	A817
<i>T. Barakat, J. P. Lechat, P. Laurent, D. Fletcher, F. Clergue, and P. Viars</i>	
Naloxone Reversal of Buprenorphine-Induced Respiratory Depression.	A818
<i>T. J. Gal</i>	
RESPIRATION II	
Clonidine Does Not Result in Adverse Effects on Arterial Blood Gases in Conscious Dogs.	A819
<i>L. Quintin, J. C. Vincent, and M. Ghignone</i>	
Halothane Antagonizes Airway Constriction by Acting Both on Airway Smooth Muscle and Parasympathetic Ganglion.	A820
<i>J-F. Brichant, K. A. Street, S. J. Gunst, and K. Rehder</i>	
The Effect of Phenoxybenzamine on V _A /Q Distribution During Hypoxia.	A821
<i>R. E. Moon, J. L. Stauffer, D. R. Theil, N. Miyazawa, E. M. Camporesi, and C. R. Swanson</i>	
Airway Hyperreactivity of Acetylcholine and Serotonin Is Independently Determined by Non-Linked Autosomal Recessive Genes.	A822
<i>R. C. Levitt, F. Santillan, and W. A. Mitzner</i>	
Changes in the Circulation and Gas Exchange During Total Knee Replacement. A Detailed Study of Intramedullary Rodding of the Femur.	A823
<i>N. R. Fahmy, K. Danylchuk, H. P. Chandler, N. Sunder, and M. G. Almaz</i>	

Effects of Midazolam on Upper Airway Resistances. <i>Ph. Montravers, B. Dureuil, and J. M. Desmonts</i>	A824
Respiratory Effects of the Jarvik-7 Artificial Heart. <i>J. J. Rouby, P. Leger, M. Arthaud, A. Cabrol, C. Cabrol, and P. Viars</i>	A825
Relationship Between Diaphragmatic Fatigue and Diaphragmatic Metabolism as Measured by ^{31}P Nuclear Magnetic Resonance (NMR) in Newborn Piglets. <i>D. G. Nichols, S. M. Eleff, J. R. Buck, S. E. Norris, and R. J. Traystman</i>	A826
Aminophylline Does Not Protect Against Fatigue but Increases Contractility and Speeds Recovery of Diaphragmatic Muscle. <i>S. Glusman, E. Faure, and M. Weil</i>	A827
Ionic and Newer Nonionic Contrast Media Adversely Affect Oxyhemoglobin Dissociation. <i>M. W. Rooney, N. J. Joseph, G. J. Crystal, and M. R. Salem</i>	A828
Effects of Halothane on Electrical Activity of Respiratory Muscles in Rats. <i>J. L. Pansard, B. Dureuil, M. Aubier, and J. M. Desmonts</i>	A829

RESPIRATION III

Preoperative Pulmonary Evaluation and Respiratory Complications After Abdominal Surgery. <i>C. Jayr, A. Mollie, J. L. Bourgain, F. Tandonnet, J. Truffa-Bachi, and M. Henry-Amar</i>	A830
Respiratory Patterns During Incentive Spirometry After Upper Abdominal Surgery. <i>C. Weissman, T. Chuter, and P. Starker</i>	A831
Inspiratory Work During Continuous Positive Airway Pressure (CPAP) Ventilation with New Generation Ventilators. <i>G. Annat, J. P. Viale, and J. Motin</i>	A832
Evaluation of Left Ventricular Volumes and Contractility During Incremental PEEP Using Two-Dimensional Transesophageal Echocardiography. <i>N. Roewer, F. Bednarz, M. Nückel, and J. Schulte am Esch</i>	A833
Work of Breathing During Expiratory Threshold Loading. <i>E. Goldman, J. Road, and A. Grassino</i>	A834
Transtracheal Oxygenation Using Simple Equipment and Low Pressure Oxygen Delivery. <i>M. L. Mingus, D. L. Reich, and M. Shalev</i>	A835

Desaturation of Cytochrome a, a ₃ in Brain and Forearm Muscle During Transient Hypoxia in Volunteers.	A836
<i>E. M. Camporesi, R. E. Moon, P. S. A. Glass, B. W. Stolp, N. B. Hampson, J. A. Griebel, and C. A. Piantadosi</i>	
Acute Effects of Glucocorticoids on Airways.	A837
<i>M. J. Darowski, S. Parker, and C. A. Hirshman</i>	
Delivery Efficiency of 3 Metered Dose Inhaler Aerosols and 2 Actuators <i>Via</i> an Endotracheal Tube.	A838
<i>E. Donna, C. S. Kim, G. Boszormenyi, E. Marcial, and M. Gold</i>	
Temporal Relationship Between Atrial Natriuretic Factor Levels and Altered Renal Function During PEEP Ventilation.	A839
<i>E. D. Kharasch, K-T Yeo, M. A. Kenny, and C. W. Buffington</i>	
Predicting Arterial Oxygenation During One-Lung Ventilation with CPAP.	A840
<i>P. Slinger, L. Nadeau, W. Triolet, and S. Suissa</i>	
Airway and Alveolar Pressures During Liquid (Fluorocarbon) Breathing Using a New Device.	A841
<i>B. P. Fuhrman, S. E. Curtis, and D. F. Howland</i>	
POSTER DISCUSSION I—"CRITICAL CARE"	
Intraaortic Balloon Pulsation: Beneficial During Closed Chest CPR in Pigs?	A842
<i>G. Loren, P. N. Fyman, P. Strauss, R. Fine, L. Kushins, and S. Wollman</i>	
Effect of Adrenergic Drugs on Cerebral Blood Flow, Metabolism, and Evoked Potentials After Delayed Onset of CPR in Dogs.	A843
<i>H. Gervais, C. L. Schleien, R. C. Koehler, I. D. Berkowitz, M. C. Rogers, and R. J. Traystman</i>	
Differences Between Arterial and Central Venous Blood Gases During Closed and Open Chest Cardiopulmonary Resuscitation.	A844
<i>A. C. Pinchak, L. S. Shepard, C. L. Emerman, J. F. Hagen, and D. E. Hancock</i>	
Effect on Neurologic Outcome After Prolonged Cardiac Arrest in Dogs of Post-Insult Hypothermia by Cardiopulmonary Bypass. Preliminary Results.	A845
<i>Y. Leonov, F. Sterz, P. Safar, H. Reich, W. Stezoshi, and H. Alexander</i>	
Effect of the Excitatory Amino Acid Antagonist MK-801 on Neurologic Function Following Complete Cerebral Ischemia in Primates.	A846
<i>W. L. Lanier, W. J. Perkins, B. Ruud, J. H. Milde, and J. D. Michenfelder</i>	

Small Volume Resuscitation from Hemorrhagic Shock in Dogs with Hypertonic Saline-Hydroxyethyl Starch Solutions.	A847
<i>J. M. Whitley, D. S. Prough, D. D. Deal, A. K. Lamb, and D. S. DeWitt</i>	
Intravenous Calcium Fails to Augment Cardiac Output Following Cardiac Surgery.	A848
<i>R. A. Strickland, L. J. Mark, J. F. Butterworth, IV, and G. P. Zaloga</i>	
Metabolic Changes in the Myocardium Following Discontinuance of Infusions of Dopamine and Dobutamine in Dogs.	A849
<i>H. Tanaka, K. Tajimi, T. Nakatani, T. Kasai, and K. Kobayashi</i>	
Significance of Lactic Acidosis in 218 Surgical ICU Patients.	A850
<i>P. J. Papadakos, T. J. Iberti, E. Benjamin, and J. A. Kaplan</i>	
Anesthetic Technique and Cardiovascular Responses During Transport to the Intensive Care Unit.	A851
<i>M. C. Damash, C. Weissman, J. G. Stone, and G. J. Todd</i>	
POSTER DISCUSSION II—"RESPIRATION"	
Thoracic Epidural Blockade-Induced Pulmonary Sympathectomy Improves P_{O_2} in an Oleic-Acid Induced Model of Pulmonary Edema.	A852
<i>T. Mayumi, T. J. Gallagher, and W. E. Kretzman</i>	
Lidocaine Attenuates Oxidant-Induced Pulmonary Vasoconstriction, But Not Arachidonate Mediator Production in the Rabbit.	A853
<i>J. R. Shayevitz and D. D. Wade</i>	
Pancuronium and Atracurium But Not Vecuronium Can Increase Pulmonary Resistance During Vagus Nerve Stimulation in Dogs.	A854
<i>J. Vettermann, J. Rach, K. C. Beck, J-F. Brichant, and K. Rehder</i>	
Halothane and Thiopental Attenuate Oxidant-Induced Pulmonary Hypertension and Edema Formation in the Isolated Perfused Rabbit Lung.	A855
<i>J. R. Shayevitz and D. D. Wade</i>	
The Role of Thromboxane in the Acute Lung Injury Induced by Microbubble Infusion.	A856
<i>N. Miyazawa, D. R. Theil, Y. F. Su, P. E. Malo, E. M. Camporesi, W. D. Watkins, and R. E. Moon</i>	
The Longitudinal Distribution of Pulmonary Vascular Resistance During Thrombin-Induced Microembolization in Sheep.	A857
<i>L. C. Siegel and R. G. Pearl</i>	

Moderate Hypoxia Impairs Endothelium-Dependent Relaxation of Rabbit Pulmonary Artery.	A858
<i>R. A. Johns</i>	
Pulmonary Microcirculatory Recruitment with Fluid Loading.	A859
<i>J. D. Emhardt, W. L. Hanson, and W. W. Wagner, Jr.</i>	
Longitudinal Distribution of Pulmonary Vascular Resistance During Endotoxin-Induced Pulmonary Hypertension in Sheep.	A860
<i>E. R. Baer, R. G. Pearl, L. C. Siegel, and S. A. Rice</i>	
Thromboxane Mediation of Propylene Glycol-Induced Pulmonary Hypertension in Sheep.	A861
<i>R. G. Pearl and S. A. Rice</i>	
Cromolyn Sodium Does Not Inhibit Hypoxic Pulmonary Vasoconstriction in Sheep.	A862
<i>R. G. Pearl</i>	
Early Maturation of Gas Exchange Reserve in the Microcirculation of Lambs.	A863
<i>L. J. Means, W. L. Hanson, and W. W. Wagner, Jr.</i>	
POSTER DISCUSSION III—"LOCAL ANESTHESIA AND PAIN"	
Effects of Lidocaine and Bupivacaine on Electrophysiologic Properties of the Nerve Cells in Rats.	A864
<i>M. Tabatabai and A. M. Booth</i>	
The Effect of an Arrhythmogenic Intravenous Dose of Bupivacaine on the Activity of Cortical and Medullary Cells.	A865
<i>R. R. Richter, M. M. Behbehani, and D. D. Denson</i>	
Differential Potencies of Bupivacaine and Etidocaine Assessed by Equilibrium and Use-Dependent Block in Single Axons of Various Types.	A866
<i>B. R. Fink and A. M. Cairns</i>	
Drug Interactions of Intraventricular Conduction Disorders Induced by Bupivacaine.	A867
<i>Q. Timour, M. Freysz, L. Bertrix, P. Couzon, J. Lang, and G. Faucon</i>	
Accidental Hypothermia and Intraventricular Conduction Disorders Induced by Bupivacaine.	A868
<i>M. Freysz, Q. Timour, L. Bertrix, P. Couzon, J. L. Béal, J. Lang, and G. Faucon</i>	
Hemodynamic Effects of Diazepam-Bupivacaine Interaction in Conscious Dogs.	A869
<i>J-L. Gerard, J. Duranteau, R. Ahmad, A. Edouard, and A. Berdeaux</i>	

Sympathetic Tone Blockade Enhances Bupivacaine Cardiotoxicity in Anesthetized Dogs.	A870
<i>J. E. de La Coussaye, J. J. Eledjam, J. Brugada, A. Sassine, and F. d'Athis</i>	
The Effect of Benzodiazepine Premedication on the Toxicity of Bupivacaine.	A871
<i>C. M. Bernards, R. L. Carpenter, S. M. Rupp, D. L. Brown, B. V. Morse, R. C. Morell, and G. E. Thompson</i>	
Enhanced Myocardial Depression from Bupivacaine in Diabetic Rats.	A872
<i>M. Imai, K. S. K. Chang, R. D. Tanz, and W. C. Stevens</i>	
Bupivacaine and Lidocaine Are More Potent Vasodilators Than Mepivacaine: Effects Determined by Anesthetic Concentration.	A873
<i>R. L. Carpenter and R. C. Morell</i>	
Magnesium Suppresses Bupivacaine-Induced Cardiac Dysrhythmias.	A874
<i>D. E. Solomon, L. Bunegin, M. Albin, and J. Gelineau</i>	
Effects of Hypo- and Hypernatremia on the Depression of Ventricular Conduction and Arrhythmias Induced by Bupivacaine.	A875
<i>L. Bertrix, Q. Timour, M. Freysz, P. Couzon, J. Lang, and G. Faucon</i>	
POSTER DISCUSSION IV—"NEUROMUSCULAR TRANSMISSION"	
Efficacy and Safety of Mivacurium Chloride (BW B1090U) for Endotracheal Intubation in Surgical Patients During N ₂ O/O ₂ /Narcotic Anesthesia.	A876
<i>D. H. Sears, V. H. M. Makela, R. L. Katz, R. Durazo, E. J. Norel, P. S. Kosek, D. Schehl, and M. E. Risner</i>	
Comparison of Fast and Slow Bolus Injections of Mivacurium Chloride Under Narcotic-Nitrous Oxide Anesthesia.	A877
<i>M. Cheng, C. Lee, E. Yang, and E. Cantley</i>	
Predicting the Effect Priming with Atracurium with a Pharmacokinetic-Pharmacodynamic Model.	A878
<i>F. Donati and D. R. Bevan</i>	
In Vitro Investigation of the Priming Principle for Neuromuscular Block.	A879
<i>R. J. Storella, J. Jaffe, E. Mehr, and H. Rosenberg</i>	
Rapid Tracheal Intubation with Vecuronium: The Timing Principle.	A880
<i>R. D. Culling, R. E. Middaugh, and E. J. Menk</i>	
Onset of Blockade with Vecuronium Alone or Combined: A Reassessment Under Uniform Controlled Conditions.	A881
<i>D. G. Silverman, C. A. Swift, K. A. Hartmann, R. S. Sinatra, and H. D. Dubow</i>	

Evaluation of Doxacurium Chloride for Endotracheal Intubation in Patients Anesthetized with Enflurane.	A882
<i>P. C. Houck, R. L. Lennon, M. P. Hosking, J. A. Ascher, and C. B. Douglas</i>	
Neuromuscular Effects and Pharmacokinetics of Doxacurium in Elderly Patients Under Isoflurane Anesthesia.	A883
<i>D. L. Dresner, S. J. Basta, A. F. Schwartz, W. Wargin, and M. Gallagher</i>	
Onset Time, Maximum Blockade, Spontaneous Recovery, and Clinical Duration of Action of Doxacurium Chloride During Narcotic Anesthesia With and Without the Prior Administration of Succinylcholine.	A884
<i>D. P. Lynam, J. E. Caldwell, and R. D. Miller</i>	
A Comparison of the Hemodynamic Effects of Doxacurium and Vecuronium During Coronary Artery Bypass (CABG) Surgery in Patients Receiving Oxygen Fentanyl Anesthesia.	A885
<i>L. M. Ensalada, S. K. Clark, M. E. Goldberg, S. E. McNulty, J. Lessin, G. E. Larijani, J. L. Seltzer, R. N. Raymond, N. M. Wise, and G. D. Rudd</i>	
An Evaluation of the Hemodynamic Effects of Doxacurium During Aortic Valve Replacement Surgery for Aortic Stenosis in Patients Receiving Oxygen Fentanyl Anesthesia.	A886
<i>L. M. Ensalada, S. K. Clark, M. E. Goldberg, S. E. McNulty, J. Lessin, J. L. Seltzer, R. N. Raymond, N. M. Wise, and G. D. Rudd</i>	
Doxacurium (BW 938) Versus Pancuronium in Patients Undergoing Abdominal Aortic Surgery: Effects on Hemodynamics and LV Function.	A887
<i>M. L. Gosgnach, P. Coriat, F. Le Bret, M. Ben Ammeur, G. Godet, M. Samama, and P. Viars</i>	
POSTER DISCUSSION V—“CIRCULATION”	
Splanchnic Neuronal Transmission Alters Homeostasis by Modifying Compensatory Responses to Hemorrhage.	A888
<i>D. A. Jordan and E. D. Miller</i>	
The Effect of Intravenous Dextrose Infusion on Post Bypass Hyperglycemia in Pediatric Cardiac Patients.	A889
<i>C. Bell, C. Hughes, D. Donielson, F. McGowan, and T. H. Oh</i>	
Changes in Cardiac Output Can Be Measured by Changes in End-Tidal CO ₂ : Computer Model Simulation and <i>In Vivo</i> Experimental Data.	A890
<i>S. A. Isserles, H. HajYousif, H. Denham, and P. H. Breen</i>	
Resuscitation from Hemorrhagic Shock with Hypertonic Saline or Lactated Ringer's in Anesthetized Dogs.	A891
<i>N. D. Kien, J. A. Reitan, D. A. White, and J. H. Eisele</i>	

Cerebrovascular and Systemic Vascular Effects of Pump Flow Variation During Hypothermic Cardiopulmonary Bypass: Influence of Acid-Base Management. <i>A. T. Rogers, D. S. Prough, D. A. Stump, R. C. Roy, and A. R. Cordell</i>	A892
Effect of Histamine ₁ and Histamine ₂ Receptor Blockers in the Prevention of Protamine Reactions. <i>J. R. Kambam, R. Meszaros, B. E. Smith, J. Stewart, and H. Bender</i>	A893
Intrathecal Papaverine for Thoracic Aortic Aneurysm Resection: A Preliminary Report. <i>D. F. Grum, L. G. Swenson, and J. Blum</i>	A894
Evaluation of Esmolol Infusion in Controlling Increases of Heart Rate and Blood Pressure During Electroconvulsive Therapy. <i>A. L. Kovac, G. K. Unruh, H. Goto, C. L. Gilliland, and K. Arakawa</i>	A895
Alveolar Gas Mixing During Apnea at Different Lung Volumes. <i>M. Skacel, G. M. Barnas, C. F. Mackenzie, J. Rickford, C. A. Alana, B. Breslaw, and R. Moorman</i>	A896
Coagulation Changes During Heart-Lung Transplantation. <i>T. Gasior, M. Ghignone, B. Griffith, and J. Lewis</i>	A897
Elastase Inhibition Decreases Hypoxia-Induced Pulmonary Vascular Changes and Pulmonary Hypertension. <i>K. Maruyama and M. Rabinovitch; sponsored by F. A. Burrows and R. E. Creighton</i>	A898
Labetalol Preserves Blood Flows to Vital Organs During Deliberate Hypotension Induced by Isoflurane. <i>M. E. Durieux, C. R. Monk, R. J. Sperry, G. E. Matthern, and D. E. Longnecker</i>	A899
POSTER DISCUSSION VI—“PATIENT SAFETY AND EPIDEMIOLOGY”	
MMS: A Screening Test for Elderly Outpatients. <i>F. Chung, P. A. Lavelle, S. McDonald, A. Chung, and N. McDonald</i>	A900
Differences Among “Short GYN Procedures:” Selecting Patient Populations for Clinical Research in Ambulatory Surgery. <i>D. S. Kitz, T. J. Conahan, M. L. Young, and J. H. Lecky</i>	A901
A One Year Prospective Study of Postoperative Pulmonary Complications After Neuromuscular Blockade by Pancuronium and Atracurium. <i>T. Pedersen, J. Viby-Mogensen, K. Eliasen, C. Ringsted, and E. Henriksen</i>	A902

Role of Preoperative Cessation of Smoking and Other Factors in Postoperative Pulmonary Complications: A Blinded Prospective Study of Coronary Artery Bypass Patients.	A903
<i>M. A. Warner, K. P. Offord, M. E. Warner, M. A. Conover, and R. L. Lennon</i>	
Major Perioperative Morbidities: Analysis for Sentinel Events.	A904
<i>M. A. Warner, M. E. Warner, and B. J. Narr</i>	
The Smothering Effect of Draping for Eye Surgery.	A905
<i>L. C. Siegel, S. I. Samuels, and T. H. Tuschka</i>	
Causative Factors of Temporomandibular Joint Dysfunctions After Endotracheal Intubation.	A906
<i>M. D. W. Lipp, M. Daubländer, H. v. Domarus, and W. F. Dick</i>	
A Blinded Prospective Comparison of Different Methods of Reducing Nausea and/or Vomiting After Outpatient Surgery.	A907
<i>J. J. Williams, M. E. Goldberg, G. E. Larjani, C. A. Nelson Marr, A. T. Marr, J. B. Lessin, and J. L. Seltzer</i>	
Effect of Obesity on Safe Duration of Apnea in Human Subjects.	A908
<i>H. G. Jense, P. Silverstein, S. Dubin, U. O'Leary Escolas, and M. Parsons</i>	
Increased Aspiration Risk in Afternoon Coronary Artery Bypass Patients.	A909
<i>R. Efird and R. C. Roy</i>	
Increased Anxiety After Intravenous Midazolam.	A910
<i>J. L. Lichtor, K. Korttila, H. deWit, J. Ward, and B. S. Lane</i>	
Oxygen Desaturation Following Time in the Recovery Room.	A911
<i>G. A. Fromme, K. Arnold, and T. A. Janossy</i>	
ASA RESIDENTS' RESEARCH ESSAY CONTEST	
Evidence for Persistent Flow-Metabolism Coupling During Halothane Versus Isoflurane Anesthesia.	A912
<i>T. D. Hansen, D. S. Warner, M. M. Todd, L. J. Vust, and D. C. Trawick</i>	
Prognostic Importance of Regional Wall Motion Abnormalities in Patients Undergoing Coronary Artery Bypass Grafting.	A913
<i>J. Leung, B. O'Kelly, J. Tubau, W. Browner, P. Goehner, M. Hollenberg, and D. T. Mangano</i>	
Pulmonary Resistance During Halothane Anesthesia is Not Determined Only by Airway Caliber.	A914
<i>D. O. Warner, J. Vettermann, V. Brusasco, and K. Rehder</i>	
SUBJECT INDEX A915	
AUTHOR INDEX A971	