

Neurosurg Clin N Am 13 (2002) 395–399

NEUROSURGERY CLINICS OF NORTH AMERICA

Index

Note: Page numbers of article titles are in **boldface** type.

Α

Age factors, in intracerebral hemorrhage outcome, 344

Albumin, for intracerebral hemorrhage, 336

Alcohol abuse, intracerebral hemorrhage in, 276, 282, 306–307

Amphetamine, intracerebral hemorrhage due to, 306

Amyloid angiopathy, intracerebral hemorrhage in, 270–271, 283, 295, 323

Anaphylatoxin, in intracerebral hemorrhage, edema due to, 377

Aneurysms, intracerebral hemorrhage in, 293–294, 303, 329 with arteriovenous malformations, 290–291

Angiography

for intracerebral hemorrhage, 290 intracerebral hemorrhage due to, 302

Angioma, venous, intracerebral hemorrhage in, 273–274, 294–295

Angiopathy, amyloid, intracerebral hemorrhage in, 270–271, 283, 295, 323

Angioplasty, intracerebral hemorrhage in carotid percutaneous transluminal, 302 for intracranial atherosclerosis, 302–303 for vasospasm, 303

Animal models, of intracerebral hemorrhage, 385–393

bacterial collagenase, 389–390 blood infusion in, 386–389 ischemia-perfusion, 390 pathologic responses in, 385–386

Anticoagulant therapy, intracerebral hemorrhage in, 305–306

Antiplatelet therapy, intracerebral hemorrhage in, 306

Apolipoprotein E, in amyloid angiopathy, intracerebral hemorrhage and, 270–271, 323

Arteriovenous malformations, intracerebral hemorrhage in, 271–272, 290–291, 303, 324

Aspiration, in intracerebral hemorrhage, 350

Aspirin, intracerebral hemorrhage in, 306

В

Bacterial collagenase model, of intracerebral hemorrhage, 389–390

Barbiturate coma, for intracerebral hemorrhage, 336

Bilirubin, formation of, in intracerebral hemorrhage, edema due to, 376–377

Biliverdin, formation of, in intracerebral hemorrhage, edema due to, 376

Biopsy, brain, intracerebral hemorrhage in, 300–301

Blood-brain barrier, disruption of, in intracerebral hemorrhage, edema due to, 285–286, 379

Blood flow, cerebral. See Cerebral blood flow.

Blood infusion model, of intracerebral hemorrhage, 386–389

Brain

biopsy of, intracerebral hemorrhage in, 300–301 edema of. *See* Edema, brain. infarction of, intracerebral hemorrhage after, 275

(

Capillary telangiectasia, intracerebral hemorrhage in, 295

Carbon monoxide, formation of, in intracerebral hemorrhage, edema due to, 376–377

Carotid arteries

endarterectomy of, intracerebral hemorrhage in, 301–302

percutaneous transluminal angioplasty of, intracerebral hemorrhage in, 302

Cavernous malformations, intracerebral hemorrhage in, 272–273, 291–293, 324–325

Cerebral arteries, middle, aneurysm of, rupture of, 293–294

Cerebral blood flow, in intracerebral hemorrhage, 355–370

blood pressure effects on, 364–366 clinical implications of, 364–368 clinical studies of, 359–363 hematoma evacuation effects on, 367–368 in hibernation phase, 363 in normalization phase, 364 in reperfusion stage, 363–364 intracranial pressure reduction and, 366–367 laboratory studies of, 355–359 theoretical considerations in, 355

Clot retraction, in intracerebral hemorrhage, edema due to, 372–373

Coagulation cascade, in intracerebral hemorrhage, edema due to, 373–374

Coagulopathy, intracerebral hemorrhage in, 275, 305–308, 327–328

Cocaine, intracerebral hemorrhage due to, 295–296, 306, 328–329

Coma, barbiturate, for intracerebral hemorrhage, 336

Complement activation, in intracerebral hemorrhage, edema due to, 285, 377

Computed tomography, in intracerebral hemorrhage, 267, 349–321 advantages of, 313 cerebral blood flow and, 359–363 hypertensive, 321 in tumors, 325–327 temporal evolution and, 319–321

Consciousness level, in intracerebral hemorrhage, versus treatment outcome, 343–344

D

Drugs, intracerebral hemorrhage due to, 295–296, 306–307, 328–329

F

Ecstasy, intracerebral hemorrhage due to, 306

Edema, brain, in intracerebral hemorrhage, 267, 371–383

blood-brain barrier disruption in, 379 classification of, 371-372 clot retraction in, 372-373 coagulation cascade activation in, 373-374 complement activation in, 377 cytotoxic, 371 hemoglobin degradation products in, 376–377 hydrostatic pressure and, 372-373 intact-barrier or open-barrier type of, 371 interstitial, 371 mass effect in, 377-378 mechanisms of, 372-379 osmotic, 371 pathology of, 284-286 red blood cell lysis in, 374-376 resolution of, 379 secondary ischemic/reperfusion injury in, 378-379

time line of, 372 vasogenic, 371

Encephalitis, intracerebral hemorrhage in, 309

Endarterectomy, carotid, intracerebral hemorrhage in, 301–302

Endoscopy, for intracerebral hemorrhage, 351

Erythrocytes, lysis of, in intracerebral hemorrhage, edema due to, 285–286, 374–376

\mathbf{F}

Fibrinolysis, of intracerebral hemorrhage, 351–353

Furosemide, for intracerebral hemorrhage, 336

Η

Hemangioma calcificans, 292

Hematoma, evacuation of. *See* Intracerebral hemorrhage, treatment of.

Hemoglobin, formation of, in intracerebral hemorrhage, 313–315, 374–376

Hemophilia, intracerebral hemorrhage in, 307–308

Hemorrhage, intracerebral. *See* Intracerebral hemorrhage.

Heparin, intracerebral hemorrhage due to, magnetic resonance imaging in. See Magnetic 305-306 resonance imaging. methods for, 313 Hereditary hemorrhagic telangiectasia, temporal evolution and, 315-321 intracerebral hemorrhage in, 274–275 versus etiology, 321-330 Hibernation phase, in intracerebral hemorrhage, Infarction, cerebral, intracerebral hemorrhage after, 275 Hydrostatic pressure, in intracerebral Infections, intracerebral hemorrhage in, 309, hemorrhage, edema due to, 372-373 329-330 Hyperosmolar therapy, for intracerebral Intracerebral hemorrhage, 265-279 hemorrhage, 336 animal models of, 385-393 Hypertension biochemical evolution of, 313-314 after intracerebral hemorrhage, 364-366 brain edema in, 267, 284–286, **371–383** intracerebral hemorrhage due to, 269, 281-283, cerebral blood flow in, 355-370 286, 321-323 clinical presentation of, 265-267 consciousness level in, versus treatment Hyperventilation, for intracerebral hemorrhage, outcome, 343-344 epidemiology of, 265, 281 Hypocholesterolemia, intracerebral hemorrhage etiology of, 313, 321-330 in, 275-276, 282 evaluation of, in vascular lesions, 289-290 aneurysms, 293-294 Hypothermia, for intracerebral hemorrhage, arteriovenous malformation, 271-272, 290 336-337 cavernous malformation, 292 hematoma enlargement in, 284 hematoma volume in, versus outcome, 343 Iatrogenic intracerebral hemorrhage, 299-312 iatrogenic, 299-312 categories of, 299-300 imaging of. See Imaging. in alcohol abuse, 276, 282, 306-307 in alcoholism, 276, 282, 306-307 in aneurysm repair, 303 in angiography, 302 in angioplasty in angioplasty, 302-303 carotid percutaneous transluminal, 302 in carotid procedures, 301–302 for intracranial atherosclerosis, 302-303 in coagulopathy, 275, 305-308, 327-328 for vasospasm, 303 in hypocholesterolemia, 275-276, 282 in anticoagulant therapy, 305–306 in intracranial pressure monitoring, 300 in antiplatelet therapy, 306 in spinal procedures, 301 in arteriovenous malformation treatment, 303 in telangiectasia, 274–275 in carotid endarterectomy, 301–302 in thrombolytic therapy, 275, 303–305 in coagulopathy, 275, 305-308, 327-328 in vascular lesions, 271-274, 289-297 in diagnostic angiography, 302 increased intracranial pressure in, 335-338 in drug abuse, 306-307, 328-329 location of, versus outcome, 342-343 in infections, 309 mechanisms of, 269-271 in intracranial pressure monitoring, 300 morbidity and mortality in, 266-267 in spinal procedures, 301 pathophysiology of, 282-286 in stereotactic surgery, 300–301 risk factors for, 269-276, 281-282 in thrombocytopenia, 307 temporal evolution of, 315-321 in thrombolytic therapy, 275, 303–305 treatment of, 286 in tumors, 308-309, 325-327 aspiration in, 350 Imaging, of intracerebral hemorrhage, 267–269, cerebral blood flow changes in, 364-368 313-334 endoscopic, 351 cerebral blood flow and, 359-363 fibrinolysis in, 351-353 computed tomography in. See Computed hypertensive, 322–323 tomography. in vascular lesions

Microaneurysms, intracerebral hemorrhage in, Intracerebral hemorrhage (continued) amyloid angiopathy, 295 aneurysms, 294 Minimally invasive therapy, for intracerebral arteriovenous malformation, 290–291 hemorrhage, 349–354 cavernous malformation, 292-293 endoscopic, 351 venous angioma, 295 fibrinolysis, 351–353 intracranial pressure reduction in, 335–338 mechanical devices for, 350-351 mechanical devices for, 350-351 rationale for, 349-350 medical versus surgical, 286, 339-347 simple aspiration, 350 nonrandomized controlled studies of, Moyamoya disease, intracerebral hemorrhage in, 341-342 randomized trials of, 339-341 recommendations for, 344–345 Myelography, intracerebral hemorrhage in, 301 variables affecting, 342–344 Myocardial infarction, thrombolytic therapy for, minimally invasive, 349-354 intracerebral hemorrhage in, 303-304 timing of, versus outcome, 343 with prior infarction, 275 Intracranial pressure Normalization phase, in intracerebral in intracerebral hemorrhage, reduction of, 366-367 hemorrhage, 364 monitoring of in intracerebral hemorrhage, 336 intracerebral hemorrhage due to, 300 Oxygen therapy, for intracerebral hemorrhage, Iron, formation of, in intracerebral hemorrhage, 313–314, 376 Ischemia-perfusion, in intracerebral hemorrhage Oxyhemoglobin, formation of, in intracerebral animal model of, 390 hemorrhage, 285-286, 313-315, 374-377 edema due to, 378-379 Lipohyalinosis, in intracerebral hemorrhage, Pallidotomy, intracerebral hemorrhage in, 300 Pentobarbital coma, for intracerebral Lumbar puncture, intracerebral hemorrhage in, hemorrhage, 336 Percutaneous transluminal carotid angioplasty, intracerebral hemorrhage in, 302 \mathbf{M} Pituitary apoplexy, 327 Magnetic resonance imaging, in intracerebral Pons, capillary telangiectasia of, 295 hemorrhage, 268–269 advantages of, 313 Positron emission tomography, in intracerebral hemoglobin byproducts in, 314-315 hemorrhage, cerebral blood flow and, 359-363 hypertensive, 322–323 Pregnancy, intracerebral hemorrhage in, 309 in amyloid angiopathy, 323-324 in arteriovenous malformations, 324 Prourokinase, intracerebral hemorrhage caused in cavernous malformations, 324-325 by, 304–305 in tumors, 325–327 in venous occlusive disease, 329 temporal evolution and, 315-319 Radiosurgery, for cavernous malformations, 293 Mannitol, for intracerebral hemorrhage, 336

Red blood cells, lysis of, in intracerebral

hemorrhage, edema due to, 285-286, 374-376

Membrane attack complex, in intracerebral

hemorrhage, edema due to, 377

Rendu-Osler-Weber syndrome, intracerebral hemorrhage in, 274–275

Reperfusion phase, in intracerebral hemorrhage, 363–364

5

Saline solution, for intracerebral hemorrhage, 336

Sedation, for intracerebral hemorrhage, 335

Seizures, in intracerebral hemorrhage, 335

Single-photon emission computed tomography, in intracerebral hemorrhage, cerebral blood flow and, 359–363

Smoking, intracerebral hemorrhage in, 282

SPECT (single-photon emission computed tomography), in intracerebral hemorrhage, cerebral blood flow and, 359–363

Stereotactic techniques

for intracerebral hemorrhage, 350–353 intracerebral hemorrhage due to, 300–301

Stroke

hemorrhagic. *See* Intracerebral hemorrhage. thrombolytic therapy for, intracerebral hemorrhage in, 304–305

Sympathomimetic drugs, intracerebral hemorrhage due to, 306

T

Telangiectasia, intracerebral hemorrhage in, 274–275, 295

Thalamotomy, intracerebral hemorrhage in, 300

Thrombin formation, in intracerebral hemorrhage, edema due to, 285, 373–374

Thrombocytopenia, intracerebral hemorrhage in, 307

Thrombolytic therapy, intracerebral hemorrhage due to, 275, 303–305

Tissue plasminogen activator for intracerebral hemorrhage, 382 intracerebral hemorrhage due to, 304–305

Tumors, intracerebral hemorrhage in, 308–309, 325–327

U

Ultrasonic aspirator, for intracerebral hemorrhage, 350–351

Urokinase

for intracerebral hemorrhage, 351–352 intracerebral hemorrhage caused by, 305

V

Vascular lesions, intracerebral hemorrhage in, 289–297

amyloid angiopathy, 270–271, 283, 295, 323 aneurysms, 293–294, 303, 329 arteriovenous malformations, 271–272, 290–291, 303, 324 capillary telangiectasia, 295 cavernous malformations, 291–293, 324–325

diagnosis of, 289–290 in illicit drug use, 295–296 venous angioma, 273–274, 294–295 venous occlusion, 329

Vasospasm

angioplasty for, intracerebral hemorrhage in, 303

thrombolytic therapy for, intracerebral hemorrhage in, 305

Venous angioma, intracerebral hemorrhage in, 273–274, 294–295

Venous occlusive disease, intracerebral hemorrhage in, 329

Von Willebrand's disease, intracerebral hemorrhage in, 307

W

Warfarin, intracerebral hemorrhage due to, 305–306