

CURRICULUM VITAE

PERSONAL INFORMATION

Name: Ann Marie Ritter, MD
Title: Associate Professor
Business/Institution Name: VCU Medical Center
Harold F. Young Neurosurgical Center
Business Address 1: 417 N. 11th St, 6th floor
Business Address 2: PO Box 980631
City, State, Zip: Richmond, VA 23298
Business Phone: 804-828-9165
Business Fax: 804-828-4493
Business Email: aritter@mcvh-vcu.edu
Languages Spoken: English, Spanish

PROFESSIONAL SUMMARY

Primary Program Area: Pediatric Neurosurgery
Areas of Expertise: Craniosynostosis, Arnold Chiari Malformation,
Hydrocephalus, Positional Plagiocephaly, Aqueductal
Stenosis, Tethered Cord, Brain Tumor, Spine Tumor

EDUCATION

07/1999-06/2000 **Fellowship in Pediatric Neurosurgery**
University of Texas at Dallas
Dallas, Texas

07/1994-06/1999 **Neurosurgical Resident**
Medical College of Virginia
Richmond, Virginia
Mentor: Dr. Harold Young

07/1993-06/1994 **Research Fellow**
Baylor College of Medicine
Houston, Texas
Mentors: Drs. Claudia Robertson, Raj Narayan, & Robert Grossman

07/1991-06/1993 **General Surgery Resident**
Baylor College of Medicine
Houston, Texas
Mentor: Dr. Micheal E. DeBakey

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07/1987-05/1991 **Medical School Education**
Baylor College of Medicine
Houston, Texas
M.D. - 1991

07/1982-12/1986 **Undergraduate Education**
University of Texas
Austin, Texas
B.S. - Nutrition
Honors

CERTIFICATION AND LICENSURE

Licensure: Virginia Commonwealth
Delaware State
North Carolina State

Certifications: American Board of Neurological Surgery
May 21, 2004, Expiration - December 31, 2015

American Board of Pediatric Neurosurgery
December 29, 2005, Expiration - 2015

Hospital Appointments: VCU Medical Center, Richmond, VA
Nemours Children's Hospital, Wilmington, DE

ACADEMIC APPOINTMENT HISTORY

09/2007-present Associate Professor VCU Medical Center

EMPLOYMENT HISTORY

09/2007-present Attending Physician, VCU Medical Center, Richmond, VA

08/2005-present Attending Physician, Nemours Children's Hospital,
Wilmington, DE

12/2004-06/2005 Attending Physician, Children's Hospital of the King's
Daughter, Norfolk, VA

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09/2000-12/2004	Attending Physician, University of North Carolina, Chapel Hill, NC
07/1999-06/2000	Fellow, University of Texas at Dallas, Dallas, TX

SPECIAL AWARDS AND HONORS

2008	Patients' Choice Award
2007	America's Top Surgeon
2007	Who's Who in America
1983-1986	Omicron Nu Member and Vice-President

MEMBERSHIP IN SCIENTIFIC OR PROFESSIONAL SOCIETIES

2014-present	One Neurosurgery Advocacy Committee (ONAC)
2010-present	International Society of Pediatric Neurosurgeon
2009-present	American Academy of Pediatrics
2007-present	American Society of Pediatric Neurosurgeons
2005-present	Virginia Chapter of AAP
2005-2011	Richmond Academy of Medicine
2004-2010	Virginia Medical Society
2000-present	AANS/CNS Section of Pediatric Neurological Surgery
1999-present	Women in Neurosurgery
1994-present	Congress of Neurological Surgeons
1994-present	American Association of Neurological Surgeons
1987-2011	American Medical Association

SCIENTIFIC AND SCHOLARLY ACTIVITIES

EXPERT SERVICES:

Editorial Board Positions

- Editor-in-Chief, ISPN Guide to Pediatric Neurosurgery: Principles and Techniques. First electronic textbook. In progress. 2011-present
- Contributing Section Editor, AAP, 2010-present
- Editorial Board, Congress Quarterly, 2009-present

Journal & Book Referee

- Virginia Pediatrics, Fall 2011--Reviewer
- AAP Grand Rounds, 2010-2011--Reviewer

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- Pediatric Neurosurgery, 2001--Reviewer
- Journal of Neurosurgery, 1999--Reviewer

Leadership Positions in Regional/National Organizations:

- Executive Board, Section of Pediatric Neurosurgery, 2014-Present
- Chairman, Education Committee, Section of Pediatric Neurosurgery, 2013-Present
- Chairman, Communications Committee, Section of Pediatric Neurosurgery, 2010-2012.
- Publication Committee, Congress of Neurological Surgeons, Member and Vice President, 2007-2010.
- Vice Chairman, Pediatric Section, Publications Committee, 2008-2010
- Vice-Chairman, Pediatric Trauma Committee, University of North Carolina, 2002-2003

IRB APPROVED STUDIES:

Ritter, AM, Olivares-Navarrete, R: Comparison of biological differences between normal osteoblasts and osteoblasts derived from patients with craniosynostosis. (VCU IRB # HM20003418) February 2015 –current.

Ritter, AM (PI): Positional plagiocephaly: Anthropometric outcomes of children treated with head orthotics compared to conservative management. (VCU IRB #: HM13163.) October 25, 2010-November 30, 2011.

GRANTS

Principal Investigator: **Ritter, Ann.** Project Title: RNA Sequencing in the Sequential Fusion of Non-Syndromic Craniosynostosis. OSP Proposal Development/Tracking number assigned: PT111673

Principal Investigator: **Ritter, Ann.** Project Title "MicroCT and PCR array analysis of isolated samples of open, fusing, or fused structures in infants with craniosynostosis" 2015 Children's Hospital Foundation Research Fund

EXTRAMURAL PRESENTATIONS: Local

Ritter , AM: Tethered cord for the Operating Room Staff: Presented at Operative Grand Rounds, VCUHS, Richmond, Va. May 2015

Ritter , AM: Advancements in Management of Craniosynostosis: Presented at Pediatric Grand Rounds, VCUHS, Richmond, Va. May 2015

Ritter, AM: Shunts: Care about what you do: Present to Neurosurgery Residents, VCUHS, Richmond, VA April 2015.

Ritter, AM, Conley, A: Lung and Cardiac Anatomy: Presented to St. Catherine's

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Middle School, Richmond, VA. May 2014.

Ritter, AM: New focuses on Craniosynostosis: Presented to Chesterfield Family Medicine Grand Rounds, Richmond, VA. November 2012.

Ritter, AM: Spinal Dysraphism. Presented at the Pediatric Spinal Symposium, Richmond, VA. September 17, 2010.

Ritter, AM: Tethered cord syndrome in children. Presented at Chesterfield Family Practice, Richmond, VA. 2009

Ritter, AM: Spasticity and Baclofen Pump Treatment in the Pediatric Population. Presented at Chippenham Hospital, Grand Rounds, Richmond, VA. 2008.

EXTRAMURAL PRESENTATIONS: Regional

Ritter, AM: New Techniques for Craniosynostosis Repair. Presented at Sentara Williamsburg Regional Medical Center, Lunch & Learn, Williamsburg, VA. September 11, 2012.

Ritter, AM: Craniosynostosis Management in Children. Presented at Mary Washington Hospital, Grand Rounds, Fredericksburg, VA. 2009

Ritter, AM: Abnormal Head Shapes in Children. Presented at Lakeview Medical Center, Grand Rounds, Newport News, VA. 2008.

Ritter, AM: Macrocephaly in Children. Presented at Riverside Hospital Family Medicine, Grand Rounds, Newport News, VA. 2008.

Ritter, AM: Advances in Craniosynostosis Repair and Brain Tumor Treatment in Children. Presented at Prince William Hospital, Grand Rounds, Manassas, VA. 2008.

Ritter, AM: Spasticity in Children. Presented at Riverside Hospital Family Medicine, Grand Rounds, Newport News, VA. 2008.

Ritter, AM: Head Trauma in Children: Where does it go? Presented at AHEC, Trauma Symposium, Greensboro, NC. 2007.

Ritter, AM: Interdisciplinary Problem Solving in Cranio-Maxillofacial Surgery. Presented at the Advanced Cranio-Maxillofacial Forum, Grand Rounds, Chapel Hill, NC. May 3, 2003.

Ritter, AM: Abnormal Head Shapes in Children: Not Just Lip Service. Presented at the Craniofacial Symposium, Friday Center, Grand Rounds, Chapel Hill, NC. June 21, 2002.

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Ritter, AM: In-utero Closure of Meningomyelocele. Presented at the Continuing Education for Triangle Operating Room Nursing Association, Raleigh, NC. 2001.

Ritter, AM: Post Hemorrhagic Hydrocephalus. Presented at the Continuing Education for the School of Nursing, University of North Carolina, Chapel Hill, NC. March 9, 2001.

Ritter, AM: Post Hemorrhagic Hydrocephalus. Presented at Grand Rounds, Cape Fear Valley Medical Center, Fayetteville, NC. February 27, 2001.

Ritter, AM: Occult Spinal Dysraphism. Presented at Grand Rounds, Camp LeJeune, NC. February 21, 2001.

Ritter, AM: Craniosynostosis. Presented at the Lineberger Cancer Center Board of Visitors, University of North Carolina, Chapel Hill, NC. February 9, 2001.

Ritter, AM: Occult Spinal Dysraphism. Presented at Surgery Grand Rounds, University of North Carolina, Chapel Hill, NC. November 22, 2000.

EXTRAMURAL PRESENTATIONS: National or International

Ritter, AM: Craniosynostosis. Presented at the AANS/CNS Section on Pediatric Neurological Surgery, Cleveland, OH. December 21, 2010.

Ritter, AM: Level of the conus in children with skeletal dysplasia. Presented at the American Society of Pediatric Neurosurgeons meeting, Cayman Island. Jan 24-29, 2010.

Ritter, AM: Incidence of Hydrocephalus in Patients with Dandy Walker Variant. Presented at the Congress of Neurological Surgeons, Boston, MA. October 2005.

Ritter, AM: Neonatal Dandy-Walker Variant: Evaluation of Associated Hydrocephalus and Developmental Outcome. Presented at the Congress of Neurological Surgeons, San Francisco, CA. October 2004.

Ritter, AM: Difference between Pediatric and Adult Head Injury. Presented at American Association of Neurosurgery, San Diego, CA. April 2003.

Ritter, AM: Percutaneous Needle Aspiration of Intracranial Hematomas in Neonates. Presented at AANS/CNS Section on Pediatric Neurological Surgery, Salt Lake City, UT. December 2003.

Ritter, AM: Does Cine MRI (CMRI) Help Predict Favorable Outcome or Symptoms in Children with Chiari I Malformations (CIM)? Presented at the AANS/CNS Section on

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Pediatric Neurological Surgery, San Diego, CA. December 2000.

Ritter AM, McClendon R, Hess K, Langford L. MIB - 1 Proliferation Index in Children with Ependymomas. Presented at the International Society of Pediatric Neurosurgery, Salt Lake City, UT. September 1999.

Ritter AM, Bullock MR, Sykes V, Willoughby KA, Ellis E, Bogler O. Transient Annexin Staining of Stretch Injury in Mutant p53 Astrocytes. Presented at the National Neurotrauma Symposium, Los Angeles, CA. November 1998.

Graham RS, Broaddus WC, Watson JC, Winters CJ, Huneycutt SW, Loudon W, **Ritter AM**. Quantitative Assessment of Neurogenic Claudication Due to Spinal Stenosis. Presented at the Congress of Neurological Surgeons, New Orleans, LA. September 1997.

Ritter AM, Barnes T, Fatorous P, Ward J, Choi S, Bullock MR. Does Brainstem Blood Flow Determine Outcome or Pupillary Response in the Patient with Severe Head Injury? Presented at the Xenon Cerebral Blood Flow Meeting, Houston, TX. June 12, 1997.

Ritter AM, Hess K, McClendon R, Langford L. MIB 1 Proliferation Index in Ependymoma: A Prognostic Indicator. Presented at the Congress of Neurological Surgeons, Montreal, QC, Canada. September 1996.

Ritter AM, Barnes T, Choi S, Ward J, Bullock MR. Brainstem Blood Flow in the Severely Head Injured Patient: Is it Related to Pupillary Response or Outcome? Presented at the Congress of Neurological Surgeons, Montreal, QC, Canada. September 1996.

Hayman, LA, Fahr LM, Hughes CL, Diaz P, **Ritter AM**, CS Robertson. Radiographic Assessment of Jugular Bulb Oxygen Saturation Catheters. Presented at the American Roentgen Ray Society Annual Meeting, Washington, DC. April 1995.

Hayman, LA, Fahr LM, Hughes CL, Diaz P, **Ritter AM**, CS Robertson. Radiographic Assessment of Jugular Bulb Oxygen Saturation Catheters. Presented at the North American Skull Base Society, Naples, FL. February 1995.

Ritter AM, Gopinath SP, Robertson CS. Evaluation of a Regional Oxygen Saturation Catheter for Monitoring of SjvO₂ in Head injury Patients. Presented at the Congress of Neurological Surgeons, Chicago, IL. October 1994.

Ritter AM, Bruner JM, Levin VL, Sawaya R, Hess K. The Prognostic Significance of Bromodeoxyuridine Labeling of Primary and Recurrent Glioblastoma Multiforme. Presented at the American Association of Neurological Surgeons, Minneapolis, MN. April 1993.

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TEACHING, ADVISING, AND MENTORING

Guest Cranial Anatomy Lecturer - St. Catherine's Upper School (2009)

- Lectured to Upper School students on brain anatomy and radiographic advances.

Pediatric Neurosurgery Lecturer to Neurosurgery Residents – VCU Medical Center (2008-present)

- Lecture at quarterly meetings as well as yearly "bootcamps" for newly on-boarded residents.

Attending Physician - Neurosurgery Service: (9/2007 – present)

- Training/teaching at bedside, clinic, ward rounds, and in surgical technique for 12 categorical neurosurgery residents.
- M3 and M4 student teaching/instruction at bedside, clinic, ward rounds.

Neurosciences Lecturer to Pediatric Residents - Nemours Hospital (2005-2007)

- Lectured weekly on topics in Pediatric Neurosurgery pertinent to pediatric residents.

Neurosciences Lecturer to Medical Students -University of North Carolina (2000-2004)

- Lectured monthly on topics including neuroanatomy and simple disease processes.

Lecturer to Neurosurgery Residents - University of North Carolina (2000-2004)

- Lectured weekly on topics including neuroanatomy and pediatric neurosurgery.

Neuroanatomy Lecturer - Baylor College of Medicine (1994)

- Teaching assistant and laboratory instructor to second year medical students.
- Lectured weekly for one year on topics including gross anatomy, brain slide presentations, cadaver dissection, and gross pathology tests.

Basic Life Support, Physiology, and General Pre-Hospital Medicine Lecturer - Houston Fire Training Academy (1989-1994)

- Lectured on basic anatomy for paramedics.

Emergency Childbirth and Basic Life Support Lecturer - Houston Police Academy (1989–1994)

- Lectured on basic life support and child birthing for paramedics and police.

Anatomy, Physiology, and Pharmacology Lecturer - Houston Community College (1989-1994)

- Lectured on the central nervous system with specifics to the medicines used in

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paramedic life support.

Advanced Cardiac Life Support and Cardiopulmonary Resuscitation (1989-1994)

- Taught ACLS and CPR.

Student Mentoring - Overall Strategy and Format:

- Application Preparation
- Personal Statement Structuring/Editing
- Research Project Assignment
- Interview Strategy/Tips
- Away-Elective Advice
- Letters of Recommendation

Students Mentored:

- Jagannath Kadiyala

M2's Mentored:

- Benjamin Nicholson
- Brent Turner

Residents Mentored:

- Leslie Hutchins, MD
- Marygrace Hajec, MD

SERVICE ACTIVITIES

SERVICE TO THE PROFESSION:

2015-present	VTE Committee, VCU Medical Center
2014-present	SONS AAP Committee at Large
2012-present	Pediatric Neuroscience Center Proposal Submission
2012-present	Pediatric Trauma Care Committee, VCU Medical Center
2012-2014	Clinical Radiation Safety Committee, VCU Medical Center
2011-present	Subspecialty Committee-PACK
2007-2011	Pediatric Steering Committee, Chippenham Hospital

SERVICE TO THE COMMUNITY:

2015	Innovation 125 Committee, St Catherine's
2012-2015	Board of Directory, Stuff Redux Creative Reuse Center, Richmond, VA

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2011-present Advisory Board, United2Heal, Richmond, VA
2008-present Girl Scout Troop Leader, Richmond VA
2008-present Reach Out and Read Program, Richmond, VA
2002-2003 Chairman, Pedal for Pediatrics Charity Bike Race, University of
North Carolina, Chapel Hill, NC

SERVICE TO OTHER AFFILIATED INSTITUTIONS:

2008-present Children's Hospital of Richmond
2008-present Hunter Holmes McGuire VA Medical Center
2007-present CJW Medical Center
2007-present Henrico Doctors' Hospital

PUBLICATIONS:

PAPERS PUBLISHED IN PEER-REVIEWED JOURNALS:

- 1.) Vega, R, Lyon C, Kierce J, Tye GW, **Ritter, AM**, Rhodes, J. Minimizing transfusion requirements for children undergoing craniosynostosis repair: The CHoR protocol. Journal of Neurosurgery: Pediatrics: August 14(2), 190-195,2014. PMID: 24999983.
- 2.) Huddle LN, Fuller C, Powell T, Hiemenga JA, Yan J, Deuell B, Lyders EM, Bodurtha JN, Papenhausen PR, Jackson-Cook CK, Pandya A, Jaworski M, Tye GW, **Ritter AM**. Intraventricular twin fetuses in fetu. Case report. Journal of Neurosurgery: Pediatrics: 9, 17-23, 2012.
- 3.) Sasaki-Adam D, Assis MC, Bajelidze G, MacKenzie W, Campbell JW, **Ritter AM**. Conus level in children with skeletal dysplasia. Journal of Neurosurgery: Pediatrics: 5(5), 455-459, 2010.
- 4.) Sasaki-Adams D, Elbabaa SK, Jewells V, Carter L, Campbell JW, **Ritter AM**. Dandy Walker Variant: A case series of 24 pediatric patients and evaluation of associated anomalies, incidence of hydrocephalus, and developmental outcomes. Journal of Neurosurgery: Pediatrics 2: 194-199, 2008.
- 5.) Ruiz RL, **Ritter AM**, Turvey TA, Costello BJ, Ricalde P. Nonsyndromic craniosynostosis: diagnosis and contemporary surgical management. Oral Maxillofacial Surg Clin N Am 16, 447-463, 2004.
- 6.) Caccamese J, Costello B J, Ruiz R L, **Ritter AM**. Positional Plagiocephaly:

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- evaluation and management. *Oral Maxillofacial Surg Clin N Am* 16, 439-446, 2004.
- 7.) **Ritter AM**, Graham RS, Amaker B, Ward JD, Broaddus WC. Central Nervous System Leiomyosarcoma in Patients with Acquired Immunocompromise Disease. *Journal of Neurosurgery* 92: 688-692, 2000.
 - 8.) **Ritter AM**, Barnes T, Fatorous P, Ward J, Choi S, Bullock MR. Does Brainstem Blood Flow Determine Outcome or Pupillary Response in the Patient with Severe Head Injury? *Neurosurgery* 44, 5:941-948, 1999.
 - 9.) **Ritter AM**, Graham RS, Amaker B, Broaddus WC, Young HF. Intracranial Extension of an Eccrine Porocarcinoma. Case Presentation and Review of Literature. *Journal of Neurosurgery* 90,1:138-140, 1999.
 - 10.) **Ritter AM**, Hess K, McClendon R, Langford L. Ependymomas: MIB 1 Proliferation Index and Survival: A Prognostic Indicator? *Journal of Neuro-oncology* 40:51-57, 1998.
 - 11.) **Ritter AM**, Luo V, Kubal W, Bullock MR. Intrasellar Presentation of a Cystic Optic Chiasm Fibrillary Astrocytoma. *Pediatric Neurosurgery* 25,5:265-268, 1996.
 - 12.) **Ritter AM**, Robertson CS, Goodman JC, Contant CF, Grossman RG. Evaluation of a Carbohydrate Free Diet for Patients with Severe Head Injury. *Journal of Neurotrauma* 13, 8:473-485, 1996.
 - 13.) **Ritter AM**, Gopinath SP, Robertson CS. Evaluation of a Regional Oxygen Saturation Catheter for Monitoring of SjvO₂ in Head injury Patients. *Journal of Clinical Monitoring* 12:285-291, 1996.
 - 14.) Hayman LA, Fahr LM, Taber KH, Hughes CL, **Ritter AM**, Robertson CS. Radiographic Assessment of Jugular Bulb Catheters. *Emergency Radiology* 2, 6:331- 338, 1995.
 - 15.) **Ritter AM**, Bruner JM, Levin VL, Sawaya R, Hess K. The Prognostic Significance of Bromodeoxyuridine Labeling of Primary and Recurrent Glioblastoma Multiforme. *Neurosurgery* 35:192-198, 1994.
 - 16.) **Ritter AM**, Robertson CS. Cerebral Metabolism. *Neurosurgical Clinics of North America* 5, 4:633-645, 1994.
 - 16.) **Ritter AM**, Robertson CS. Intensive Care Management of the Neurosurgical Patient. *Contemporary Neurosurgery* 16, 14:1-8, 1994.

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17.) Perez-Cruet M, Adelman L, Anderson M, Roth P, **Ritter AM**, Saria S. Stereotactic Biopsy of Non-Enhancing Cerebral Lesions. *Journal of Stereotactic and Functional Neurosurgery* 61:105-117, 1993.

BOOK CHAPTERS:

- 1.) **Ritter, AM:** Craniosynostosis: non-syndromic. *ISPN Guide to Pediatric Neurosurgery*. In progress.
- 2.) **Ritter, AM:** Encephaloceles. *ISPN Guide to Pediatric Neurosurgery*. In progress.
- 3.) **Ritter AM**, Ward JD: Intracranial Mass Lesions After Head Injury in the Pediatric Population. Editors: A. Leland Albright, Ian Pollack, P. David Adelson. *Principles and Practice of Pediatric Neurosurgery*. Thieme. New York, 1999.
- 4.) **Ritter AM**, Hayman LA, Charletta D: Diagnosing Cerebrovascular Disease Using MRA and Conventional Cerebral Angiography. Editor: Philip B Gorelick. *Atlas of Cerebrovascular Disease*. Current Medicine, 1995.

Journal Article Review:

- 1.) Conley A, **Ritter AM**. Long-term functional benefits of selective dorsal rhizotomy for spastic cerebral palsy. *Neurological Surgery*, MS:100-T-13 September (August) 2013.
- 2.) **Ritter AM**. Neurosurgical Complications and Resident Work Hour Restriction. *Neurological Surgery*, MS:028-T-12 April (March) 2013.
- 3.) **Ritter AM**, Rosenthal. Programmable Shunt Affected by Near Exposure of iPad2. *Neurological Surgery*, MS:099-T-12 September (August) 2012.
- 4.) Bollo, **Ritter AM**. Parental Prediction of Cerebrospinal Fluid Shunt Malfunction. *Neurological Surgery*, MS:038-T-12 April 2012.
- 5.) Ruzicka, **Ritter AM**. Parental versus Postnatal Repair of Myelomeningocele. *Neurological Surgery*, MS:034-T-11 March (February) 2011.
- 6.) **Ritter AM**. Efficacy of Minimally Invasive Sagittal Craniosynostosis Repair. *Neurological Surgery*, MS:091-T-11 August 2011.
- 7.) Olavarria, **Ritter AM**. A New Clinical Pathway for Children with CSF Shunt Malfunction. *Neurological Surgery*, MS:011-T-11 January 2011.
- 8.) Olavarria, **Ritter AM**. Head Injury in Low-Height Falls: Toddlers vs Infants.

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Neurological Surgery, MS:115-T-10 October 2010.

- 9.) **Ritter AM.** Endoscopic Third Ventriculostomy for Obstructive Hydrocephalus. Neurological Surgery, MS:074-T-10 July 2010.
- 10.) **Ritter AM.** Cervical Spine Clearance in Children <3 Years of Age. Neurological Surgery, MS:047-T-10 August 2010.