

CURRICULUM VITAE

Mohammad Sarwar, M.D.

PERSONAL INFORMATION

Name: Mohammad Sarwar, M.D.
Place of Birth: Pakistan
Year Of Birth: 1945
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EDUCATION

<u>Year</u>	<u>Degree</u>	<u>Field of Study</u>	<u>Institution</u>
1967	M.D.	Medicine	King Edward Medical College, Lahore, Pakistan

POSTDOCTORAL TRAINING

<u>Year(s)</u>	<u>Training</u>	<u>Specialty/Discipline</u>	<u>Institution</u>
1960-1962	Undergraduate		Government College of Lahore, Lahore, Pakistan
1968-1968	Internship	Rotating Internship	Polyclinic Medical School and Hospital, New York
1969-1972	Residency	Radiology	St. Luke's Hospital, New York, NY
1972-1974	Fellowship	Neuroradiology	Albert Einstein College of Medicine & Bronx Municipal Hospital Center, Bronx, New York

FACULTY ACADEMIC APPOINTMENTS

<u>Year(s)</u>	<u>Academic Title</u>	<u>Academic Department</u>	<u>Academic Institution</u>
1972-1974	Instructor	Radiology, Neuroradiology	Albert Einstein College of Medicine, Bronx, NY
1974-1978	Assistant Professor	Radiology	University of Texas Medical Branch, Galveston, TX
1978-1980	Associate Professor	Radiology	University of Texas Medical Branch, Galveston, TX
1980-1985	Associate Professor	Neuroradiology	Yale School of Medicine, New Haven, CT
1985-1989	Professor	Radiology	University of Illinois College of Medicine, Chicago, IL
1990-1995	Assistant Professor	Neuroradiology	University of Texas Southwestern Medical School, Dallas, TX
2009-now	Clinical Associate Professor	Radiology	University of Texas Southwestern Medical School, Dallas, TX

CURRENT LICENSURE AND CERTIFICATION

License Number E3436/Texas
License Expiration 5/31/2016
Primary Spec Diagnostic Radiology
Boards Yes
Initial Cert 1973 **Re-cert** N/A

HONORS AND AWARDS

<u>Year</u>	<u>Name of Award</u>	<u>Awarding Organization</u>
1983	Resident's Teacher of the Year Award	Yale University

APPOINTMENTS AT HOSPITALS AND AFFILIATED INSTITUTIONS

<u>Year(s)</u>	<u>Hospital Position</u>	<u>Hospital Dept/Division</u>	<u>Hospital Institution</u>
1990-1995	Courtesy Staff	Radiology	UT Southwestern Medical Center, Dallas, TX
2001-2001	Radiologist	Radiology	Veterans Health Administration, Dallas, TX
2001-2009	Medical Director		Gemini Digital Imaging, Mesquite TX

OTHER PROFESSIONAL POSITIONS

<u>Year(s)</u>	<u>Position Title</u>	<u>Institution</u>
1989-1995	Neuroradiologist	Doctors Hospital, Dallas, TX
1998-2000	Co-founder and C.E.O.	RAVOX (a Speech Recognition Technology Company)

MAJOR ADMINISTRATIVE AND LEADERSHIP POSITIONS

<u>Year(s)</u>	<u>Position Title</u>	<u>Institution</u>	<u>Scope</u>
1974-1978	Director, Division of Neuroradiology	University of Texas Medical Branch, Galveston TX	Departmental
1978-1980	Director, Neurology and Neurosurgery	University of Texas Medical Branch, Galveston TX	Departmental
1985-1988	Chief of Neuroradiology	Cook County Hospital, Dallas, TX	Hospital
1985-1989	Chief of Neuroradiology	University of Illinois College of Med, Chicago IL	Departmental
1995-2001	Chief of Radiology	Olean General Hospital, Olean, NY	Hospital

COMMITTEE SERVICE

National

<u>Year(s)</u>	<u>Position Title</u>	<u>Name of Committee</u>	<u>Institution/Organization</u>
1988-1988	Member	Member of the Ad Hoc Committee on Magnetic Resonance Imaging o	American Society of Neuroradiology
1990-1990	Member	Member Audiovisual Committee	American Society of Neuroradiology

PROFESSIONAL SOCIETIES

<u>Year(s)</u>	<u>Society Name</u>
1974-now	American Society of Neuroradiology
1975-now	Radiological Society of North America
1979-now	American Roentgen Ray Society
1985-now	American College of Radiology
1987-1987	Chicago Medical Society for the West Branch
2001-now	Texas Radiological Society

GRANT REVIEW ACTIVITIES

<u>Year(s)</u>	<u>Name of Committee</u>	<u>Organization</u>
1978-1980	Trauma Grant to Neurosurgery Division at the University of Texas Medical Branch	National Institute of Health

EDITORIAL ACTIVITY

Editor/Associate Editor

<u>Year(s)</u>	<u>Journal Name</u>	<u>Editorial Role</u>
2014	Journal of Gloabal Radiology	Editor

Reviewer (All Types)

<u>Year(s)</u>	<u>Journal Name</u>	<u>Editorial Role</u>
1978	Atlas of Polytome Pneumography: With Particular Reference to the Midline Ventricles of the Brain. By T. El Gammel and M.B. Allen with assistance of Dyken, Springfield, IL., Charles C. Thomas Publishers, 1977. Am J Roentgenol 131: 64, 1978.	Book Reviewer

1980	Neuroradiology of Sellar and Juxtacellular Lesions. By K. Francis Lee, Shu-Ren Lin, Springfield IL., Charles C. Thomas Publishers, 1979. Am J Roentgenol 134: 284, 1980.	Book Reviewer
1982	Radiology of the Spinal Cord Injury. By Leonid Calenoff. Am J Roentgenol 138: 216, 1982.	Book Reviewer
1982	Radiology of the Normal Skull. By Robert Shapiro. Am J Roentgenol 137: 216, 1982.	Book Reviewer
1983	Computed Tomography of the Head and Neck. By Anthony A. Mancuso and Clinical Aspect. Eds: Kazner E, Wende S, Grumme TH, Lanksch W, and Stockdorph O, Berlin: Springer-Verlag, 548pp, 1982, AJR, No.: 880, May 1983.	Book Reviewer
1984	The Radiology of Complications in Medical Practice. Ed: Schwartz EE. Baltimore: University Park Press, 1983. AJR 143: 290, 1984.	Book Reviewer
1984	Cysticercosis of the Central Nervous System: Eds: Palacios et al: Springfield IL., Thomas, 115pp., 1983; AJR 192: 668, April 1984.	Book Reviewer
1985	Radionuclide Imaging of the Brain. Ed: Holman BL: New York: Churchill Livingstone, 232pp., 1985.	Book Reviewer
1985	Head and Spine Imaging. Eds: Gonzalez CF, Grossman CB, and Masdeu JC, New York: John Wiley & Sons, 952pp., 1985.	Book Reviewer
1986	Functional Mapping of the Brain in Vascular Disorders. Ed: Wolf Dieter Heiss. Berlin; Heidelberg: Springer-Verlag, 126pp., AJR 147: 570, 1986.	Book Reviewer
1988	Pediatric neurology and Neuroradiology. Cerebral and Cranial Diseases. Eds: Claus Diebler & Oliver Dulac. New York: Springer-Verlag, 408pp., AJR 150: 390, February 1988.	Book Reviewer

INVITED LECTURES, TEACHING AND PRESENTATIONS

National

<u>Year(s)</u>	<u>Presentation Title or Course Name</u>
1987	MRI Of Intracranial And Spinal Malformations At The 10Th Meeting Of The American Society Of Neuroimaging At Tampa, Florida, February 28 – March 3, 1987.

Regional

<u>Year(s)</u>	<u>Presentation Title or Course Name</u>
1976	Cranial Tomography. Business And Professional Men’S Club,, Beaumont, Texas, January 1976.
1976	Computed Cranial Tomography. Golden Crescent Seminars, Galveston Chapter Of Texas Academy Of Family Planning, Clear Lake, Texas, February 1976.
1977	CT Scanning. Program For Area Physicians, Danforth Memorial Hospital, Texas City, Texas, March 8, 1977.
1977	Computed Cranial Tomography. Galveston Chapter Of The Texas Academy Of Family Physicians, Galveston, Texas, September 6, 1977.
1977	CT Scanning Of The Head Injured Patient. Practical Methods Of Monitoring And Management Of Head Injuries, Sponsored By Division Of Neurosurgery. The University Of Texas Medical Branch, Galveston, Texas And The Texas Association Of Neurosurgeons, August 1977.
1983	CNS Malformation And Hydrocephalus, To American Association Of Neuropathologists, Inc., Annual Meeting Held At The Chase Park Plaza Hotel In St. Louis, June 1983.
1984	Texas Medical Association 1984 Meeting Held May 13 – 19, At Forth Worth (Texas). (1) Impact of NMR: The Evaluation Of Neurological Diseases. (2) CT of CNS Inflammatory Diseases. (3) CT of CNS Congenital Malformations.
1987	Sella Turcica: Past, Present And Future. St. Luke’S Hospital, New York, October 1987.
1988	Radiology Review Boards. Louisville, Kentucky. May 21-22, 1988. Topics: 1) Pituitary and Parapituitary Lesions 2) Pediatric Neuroradiology 3) Intracranial Aneurysms 4) Angiomas

SERVICE TO THE COMMUNITY AND PATIENT EDUCATION

BIBLIOGRAPHY OF SCHOLARLY PUBLICATIONS

Original Research Articles

- 1 Sarwar M, Azar-Kia B, Schechter MM, Valsamis M, Batnitzky S: Aqueductal occlusion in the congenital rebecca syndrome. *Neurology* 24:198-201, 1974.
- 2 Azar-Kia B, Sarwar M, Marc JA, Schechter MM: Intraosseus meningioma. *Neuroradiology* 6:246-253, 1974.
- 3 Batnitzky S, Sarwar M, Leeds NE, Schechter MM, Azar-Kia B: Colloid cysts of the third ventricle. *Radiology* 112:327-329, 1974.
- 4 Azar-Kia B, Sarwar M, Schechter MM, Kim SU: Subependymal veins and ventricular tumors. *Radiology* 113:81-88, 1974.
- 5 Azar-Kia B, Sarwar M, Schechter MM, Valsamis M: Demarcated glioblastoma and prolonged angiographic tumor stain. *Neuroradiology* 8:163-166, 1974.
- 6 Wisoff HS, Sarwar M: Chiasmal compression caused by a dilated third ventricle. *Neuroradiology* 8:195-199, 1975.
- 7 Azar-Kia B, Sarwar M, Batnitzky S, Schechter MM: Radiology of intracranial gas. *Am J Roentgenol* 124:315-323, 1975.
- 8 McCormick WF, Kelly PJ, Sarwar M: Fatal paradoxical muscle embolization in traumatic carotid-cavernous fistula repair. *J Neurosurgery* 44:513-516, 1976.
- 9 Sarwar M, Batnitzky S, Schechter MM, Liebeskind A, Simmer AE: The growing intracranial aneurysms. *Radiology* 120:603-607, 1976.
- 10 Eisenberg HM, Sarwar M, Scochet S, Jr: Symptomatic Rathke's cleft cyst. *J Neurosurgery* 45:585-588, 1976.
- 11 Sarwar M, Batnitzky S, Schechter MM: Tumorous aneurysms. *Neuroradiology* 121:79-97, 1976.
- 12 Sarwar M, Swischuk LE, Schechter MM: The intracranial chondromas. *Am J Roentgenol* 127:973-977, 1976.
- 13 Sarwar M: Abducens nerve paralysis due to a giant aneurysm of the internal carotid artery located in the medial carotid canal. *J Neurosurgery* 46:121-123, 1977.
- 14 Swischuk LE, Sarwar M: The sella in childhood and hypothyroidism. *Pediatric Radiology* 6:1-3, 1977.
- 15 Sarwar M, Kelly PJ: Adult diastematomyelia. *Spine* 2:60-64, 1977.
- 16 Sarwar M: Deep venous occlusion in the Sturge-Weber syndrome. *Revista Interamericana de Radiologia* 2:159-161,
- 17 Kirchmer N, Sarwar M: Absent arch, hypoplastic pedicle: another confusing cervical spine anomaly. *Am J Roentgenol* 129: 154-155, 1977.
- 18 Sarwar M, Batnitzky S, Schechter MM: Anterior pontomesencephalic vein and basilar artery in exophytic brainstem glioma. *Radiology* 124: 403-407, 1977.
- 19 Sarwar M: Cranial computed tomography: experience at the University of Texas Medical Branch. *Texas Medicine* 73: 42-61, 1977.
- 20 Swischuk LE, Sarwar M: The sella turcica (some lesser known dynamic features). *CRC Critical Review in Diagnostic Imaging* 2: No: 1, 37-55, 1978.
- 21 Sarwar M: Computed cranial tomography: its true perspective. Editorial. *Texas Medicine* 74: 105-106, 1978.
- 22 Swischuk LE, Fagan CJ, Sarwar M: Persistence of the dens as the body of C1, report of rare anomaly. *Radiology* 127: 303, 1978.
- 23 Sarwar M, McCormick WF: Decrease in ventricular and sulcal size after death. *Radiology* 127: 409-411, 1978.
- 24 Eisenberg HM, Sarwar M: Ventriculographic features of ascending transtentorial herniation. *Acta Neuroch* 42: 225-228, 1978.
- 25 Sarwar M: Primary sellar parasellar esthesioneuroblastoma. *Am J Roentgenol* 133: 140-141, 1979.
- 26 Swischuk LE, Hayden CK, Sarwar M: The posteriorly tilted dens: A normal variation mimicking a fractured dens. *Pediatric Radiology* 8: 27-28, 1979.
- 27 Swischuk LE, Hayden CK, Sarwar M: the dens-arch synchondrosis versus the hangman's fracture. *Pediatric Radiology* 8: 100-102, 1979.
- 28 Sarwar M: Cranial computed tomography in the diagnosis of congenital malformations of the brain. *Weekly Update: neurology and Neurosurgery* 2: 2-9, 1979.
- 29 Sarwar M: Current status of neuroradiologic investigation of CNS inflammatory disease. *CPDR* 9: no. 3, 3-61, May/June, 1980.
- 30 Schochet SS, Sarwar M, Kelly PJ, Masel BE: Symptomatic cerebral histoplasma. *J Neurosurgery* 52: 273-275, 1980.

- 31 Sarwar M: Current status of neuroradiologic investigation of CSN inflammatory disease. *Current Problems in Diagnostic Radiology* 9: No. 3, 3-61, 1980.
- 32 Brinkman SD, Sarwar M, Levin HS, Morris HH: Quantitative indexes of computed tomography in dementia and normal aging. *Radiology* 138: 89-92, 1981.
- 33 Levin HS, Grossman RG, Sarwar M, Meyers CA: Linguistic recovery after closed head injury. *Brain and language* 12: 360-374, 1981.
- 34 Sarwar M, Ford K: Rapid development of basal ganglia calcification. *AJNR* 2: 103-104, 1981.
- 35 Ford K, Sarwar M: Computed tomography of dural sinus thrombosis. *AJNR* 2: 539-543, 1981.
- 36 Richmond T, Virapongse C, Sarwar M, Kier EL, Rothman S: Intraparenchymal blood fluid levels: new Ct sign of arteriovenous malformation rupture. *AJNR* 2: 577-579, 1981.
- 37 Sarwar M: Neuroradiology of major neurologic disorders of the brain in neonates and infants. *Current Problems in Diagnostic Radiology* 10: No. 2, 4-59, March/April, 1981.
- 38 Senter H, Sarwar M; Nontraumatic dissecting aneurysm of the vertebral artery. *J Neurosurgery* 56: 128-130, 1982.
- 39 Virapongse C, Rothman SLG, Kier EL, and Sarwar M: Computed tomographic anatomy of the temporal bone. *AJNR* 3: 379-389, 1982.
- 40 Corkhill G, Sarwar M, Virapongse C: Evolution of dolichoectasia of the vertebrobasilar system as evidenced by serial computed tomography. *Surg Neurol* 18: 262-266, 1982.
- 41 Rose J, Sarwar M: Intracranial abscess. *Neurology and Neurosurgery Update Series*. Vol. 3, Lesson 27, 1982.
- 42 Sarwar M, Virapongse C, Kier EL: nature of vertex striations on the lateral skull radiographs. *Radiology* 146: 80, January 1983.
- 43 Virapongse C, Rothman SLG, Sasaki C, Kier EL, and Sarwar M: The role of high resolution computed tomography in evaluating disease of the middle ear. *Am J Otolaryngology* 4: 107-112, 1983.
- 44 Virapongse C, Sarwar M, Kier EL, Sasaki C, and Pillsbury H: Temporal bone disease: a comparison between high resolution computed tomography and pluridirectional tomography. *Radiology* 147: 743-748, June 1983.
- 45 Sarwar M, Crelin ES, Kier EL, Virapongse C: Experimental spinal cord stretchability and the tethered cord syndrome. *AJNR* 4: 641-643, 1983.
- 46 Virapongse C, Wagner F, Sarwar M, Kier EL: The choice of contrast agent for myelography in patients with non-penetrating cervical spine trauma. *Radiology* 147: 467-471, 1983.
- 47 Virapongse C, Sarwar M, Sasaki C, Kier EL: High resolution computed tomography of the osseous external auditory canal: 1. Normal anatomy. *J Computer Assisted Tomography* 7: (3): 486-492, June 1983.
- 48 Virapongse C, Sarwar M, Sasaki C, Kier EL: High resolution computed tomography of the osseous external auditory canal: 2. Pathology. *J Computer Assisted Tomography* 7: (3): 493-497, June 1983.
- 49 Virapongse C, Sarwar M, Kier EL, and Sasaki C: High resolution computed tomography of the temporal bone: its role in the evaluation of middle ear disease. *American Journal of Otolaryngology* 4:107-112, 1983.
- 50 McCarthy S, Sarwar M, Virapongse C, Ehrenkranz R: Craniofacial anomalies in amniotic band disruption complex. *Pediatric Radiology* 14: 44-46, 1984.
- 51 Sarwar M, Virapongse C, Bhimani S, Freilich M: The interhemispheric fissure sign of dysgenesis of corpus callosum. *J of Computed Assisted Tomography* 8: 637-644, 1984.
- 52 Virapongse C, Sarwar M, Bhimani S, Crelin ES: Skull phylogeny: An investigation using radiography and high-resolution computed tomography. *AJNR* 5: 147-154 March/April 1984.
- 53 Sarwar M, Virapongse C, Bhimani S: Primary tethered cord syndrome: A new hypothesis of its origin. *AJNR* 5: 235-242, May/June 1984.
- 54 Bhimani S, Virapongse C, Sarwar M, and twist JF: Computed tomography in penetrating injury to the eye. *Am J Ophthalmol* 97: 583-586, 1984.
- 55 Virapongse C, Bhimani S, Sarwar M, Greenberg A, and Kim J: Prolactin-Secreting pituitary adenomas: CT appearance in diffuse invasion. *Radiology* 152:447-451, 1984.
- 56 Bhimani S, Virapongse C, Sarwar M: High resolution computed tomographic appearance of normal cochlear aqueduct. *ANJR* 5: 715-720, Nov/Dec 1984.
- 57 Sarwar M, Virapongse C, Bhimani S: Experimental production of superior sagittal sinus thrombosis in the dog. *ANJR* 6: 19-22, Jan/Feb 1985.
- 58 Virapongse C, Sarwar M, Bhimani S, Crelin ES: Computed tomography in the study of the development of the skull base: 1. Normal morphology. *J Compt Asst Tomogr* 9: 85-94, Jan/Feb 1985.

- 59 Virapongse C, Sarwar M, Bhimani S, Crelin ES: Computed tomography in the study of the development of the skull base: 2. Anencephaly the aberrant skull form. *J Compt Asst Tomogr* 9: 95-102, Jan/Feb 1985.
- 60 Bhimani S, Virapongse C, Sarwar M, Sabshin J, Paterson R: Intracerebral pneumatocele: CT findings. *Radiology* 154: 111-114, 1985.
- 61 Bhimani S, Sarwar M, Virapongse C, Renato R, Freilch M: Computed tomography of cerebrovascular calcification in post-surgical hypoparathyroidism. *J Compt Asst Tomogr* 9: 121-124, Jan/Feb 1985.
- 62 Virapongse C, Sarwar M, Bhimani S, Sasaki C, Shapiro R: Computed tomography of temporal bone pneumatization: 1. Normal pattern and morphology. *AJNR* 6: 551-559, July/August 1985.
- 63 Virapongse C, Sarwar M, Bhimani S, Sasaki C, Shapiro R: Computed tomography of temporal bone pneumatization: 2. Petrosquamosal suture and septum. *AJNR* 6: 561-568, July/August 1985.
- 64 Virapongse C, Sarwar M, Bhimani S, Sasaki C, Shapiro R: Computed tomography of temporal bone pneumatization: 1. Normal pattern and morphology. *AJNR* 145: 473-481, September 1985.
- 65 Leehey P, Naseem M, Every P, Russell E, Sarwar M: Vertebral hemangioma with compression myelopathy: Metrizamide CT demonstration. *J Compt Asst Tomogr* 9: 985-986, Sept/Oct 1985.
- 66 Williams HC, Sarwar M, Virapongse C, Bhimani S: Intracranial teratoma associated with agenesis of the corpus callosum. *Pediatric Radiology* 15: 333-336, 1985.
- 67 Sarwar M, Naseem M: Progressive myelopathy. *J.A.M.A.* 254: 2740, November 15, 1985.
- 68 Sarwar M, McCarthy S, Virapongse C, and Ehrenkranz RA: Craniofacial Anomalies in the Amniotic Band Disruption Complex. In: *Annual Review of Hydrocephalus 1985*, Vol. 3. Ed: Satoshi Matsumioto et al. Neuron Publishing Co., Shinagawa Ku, Tokyo.
- 69 Virapongse C, Shapiro M, Gmitro A, Sarwar M: Three dimensional computed tomographic reformation of the spine, skull, and brain from axial images. *Neurosurgery* 18: 53-58, January 1986.
- 70 Sarwar M: Genetic malformations recapitulate phylogeny. *Acta Radiologica Supp* 369, 637-641, 1986.
- 71 Virapongse C, Czenaue C, Quisling R, Sarwar M, Hunter S: The empty delta sign: Frequency in 76 cases of dural sinus thrombosis. *Radiology* 62: 779-785, March 1987.
- 72 Rhee RS, Kumasaki DY, Sarwar M, Rodriguez J, Naseem M: MR Imaging of intraventricular cysticercosis. *J Compt Asst Tomogr* 11 (4): 598-601, July/August 1987.
- 73 Sarwar M: Magnetic Resonance imaging of congenital brain malformations. *The J of IMA* 19(2): 56-70, 1987.
- 74 Geller TJ, Vern BA, Sarwar M: Focal MRI finding in early SSPE. *Pediatric Neurology* 3 (5): 246-316, September/October 1987.
- 75 Naseem M, Devasthali R, Sarwar M, et al: Hemorrhagic metastatic melanoma: unusual clinical presentation. *Illinois Medical Journal* 173 (1): 38-39, January 1988.
- 76 Naseem M, Leehey P, Russell E, Sarwar M, Ramakrishna D: MR of basilar artery dolichoectasis. *AJNR* 9 (2): 391-392, March 1988.
- 77 Sarwar M, Schafer M: Brain malformations in linear nevus sebaceous syndrome: An MR study. *J Comput Assist Tomogr* 12 (2): 338-340, March/April 1988.
- 78 Sarwar M: Septum pellucidum: normal and abnormal. A review. *AJNR* 10 (5): 989-1005, September/October 1989.
- 79 Sarwar M: William Allen Sturge In: *The Founders of Child Neurology*. Ed: Ashwal, Stephen. Norman Publishing in Association with the Child Neurology society. San Francisco, 1990. Pp. 354-358.
- 80 Sarwar M: Imaging of the pediatric spine and its contents. *J Child Neurology* (by invitation). 5: 3-18, January 1990.

Reviews, Chapters, Monographs and Editorials

- 1 Sarwar M: The Head, Face and Neck. In: *Introduction to Diagnostic Radiology*. Ed: Schreiber MH, Charles C. Thomas, Publishers, Springfield, IL.; 1980.
- 2 Sarwar M: The Central nervous System. In: *Introduction to Diagnostic Radiology*. Ed: Schreiber MH, Charles C. Thomas, Publishers, Springfield, IL.; 1980.
- 3 Sarwar M, Azar-Kia B, and Batnitzky S: *Basic Neurology*. Warren H. Green, Inc., Publishers, St. Louise, MO. 1982.
- 4 Sarwar M, Kier EL, Virapongse C: Development of the Spine and Spinal Cord. In: *Modern Neuroradiology*, Vol. 1, *Computed Tomography of the Spine and Spinal Cord*. Eds: Newton TH, Potts, DG, Clavadel Press, San Anselmo, CA.; 1983.
- 5 Sarwar M: *Computed Tomography of Congenital Brain Malformations*. Warren H. Green, Inc., Publishers, St. Louise, MO. 1985.
- 6 Sarwar M, Falkoff G, Naseem M: *Radiographic Techniques in Infections of the Central Nervous System*. *Neurologic Clinics* 4: No. 1: 41-68, 1986.

- 7 Virapongse C, Bhimani S, Sarwar M: Radiography of the Normal Ear. In: Radiology, Chapter 8. Eds: Taveras JM, Ferrucci, JT: JB Lippincott Company, Philadelphia; 1986.
- 8 Virapongse C, Bhimani S, Sarwar M: Radiography of the Abnormal Ear. In: Radiology, Chapter 9. Eds: Taveras JM, Ferrucci, JT: JB Lippincott Company, Philadelphia; 1986.
- 9 Virapongse C, Sarwar M: Development of the skull. In: Modern Neuroradiology, Vol. 3, Skull and Brain. Eds: Newton TH, Hasso AN, Dillon R, Raven Press, Clavadel Press, Anselmo, CA.; 1987.
- 10 Sarwar M: Intracranial Aneurysms. In: Sarwar M, Batnitzky S, Eds. Imaging of Non-Traumatic Ischemic and Hemorrhagic Disorders of the Central Nervous System. Kluwer Academic Publishers, Boston; 1989.
- 11 Virapongse C, Malat J, Sarwar M: Radiology of Dural Venous Sinus Thrombosis. In: Sarwar M, Batnitzky S, Eds. Imaging of Non-Traumatic Ischemic and Hemorrhagic Disorders of the Central Nervous System. Kluwer Academic Publishers, Boston; 1989.

Book or Textbook

- 1 Sarwar M, Azar-Kia B, and Batnitzky S: Basic Neurology. Warren H. Green, Inc., Publishers, St. Louise, MO. 1982.
- 2 Sarwar M: Computed Tomography of Congenital Brain Malformations. Warren H. Green, Inc., Publishers, St. Louise, MO. 1985.
- 3 Sarwar M, Batnitzky S (Eds): Imaging of Non-Traumatic Ischemic and Hemorrhagic Disorders of the Central Nervous System. Kluwer Academic Publishers, Boston, Dordrecht, London, 1989.

Case Report

- 1 Sarwar M, Swischuk LE: Bilateral internal auditory canal enlargement due to dural ectasia in neurofibromatosis (a case report). Am J Roentgenol 129: 935-936, 1977.
- 2 Sarwar M, McCormick WF: Intracerebral venous angioma: case report and review. Arch Neurology 35: 323-325, 1978.
- 3 Handel S, Grossman RG, Sarwar M: Computed tomography in the diagnosis of spinal cord astrocytoma (case report). J Comp Tomogr 2: 226-228, 1978.
- 4 Sarwar M: Case report: Dysgenesis of corpus callosum. Applied Radiology Vol. 11, No. 6, 97-104, Nov/Dec 1982.

Letter to the Editor

- 1 Sarwar M: Foramen of Monro: a misnomer. Letter to Editor. Am J Roentgenol 128:1069. 1977.
- 2 Adelman LS, Post KD, Eisenberg HM, Sarwar M, Schochet S Jr: Calcification in Rathke's cleft cysts. Letter to Editor. J Neurosurgery 47: 541, 1977.
- 3 Sarwar M: Lumbar puncture: a simple technical note. Letter to Editor. Texas Medicine, 75: 123, 1979.
- 4 Sarwar M. Letter to the editor: Can we bridge the troubled waters? AJR 153 (1): 190, July 1989.

Proceedings of a Meeting

- 1 Azar-Kia B, Sarwar M, Schechter MM: Angiographic features of brain stem rotation. American Society of Neuroradiology Meeting, Boston, Mass., April 1973.
- 2 Batnitzky S, Sarwar M, Leeds NE, Schechter MM, Azar-Kia B: Colloid cysts of the third ventricle. 59th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, IL., November 1973.
- 3 Batnitzky S, Azar-Kia B, Sarwar M, Schechter MM: Intracranial granulomas. 59th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, IL., November 1973.
- 4 Azar-Kia B, Palacios E, Schechter MM, Sarwar M: Further observations of subependymal veins and paraventricular tumors. 10th Symposium Neuroradiologicum, Montevideo, Uruguay, March 1974.
- 5 Schechter MM, Sarwar M, Batnitzky S: Aneurysms as space occupying lesions. 3rd S.A. National and International Radiological Congress. Johannesburg, South Africa, September 1974.
- 6 Batnitzky S, Liebskind A, Puljic S, Azar-Kia B, Sarwar M, Schechter MM: Arachnoid cysts of the spine. 60th Annual Meeting of the Radiological Society of North America, December 1974.
- 7 Batnitzky S, Sarwar M, Leeds NE, Schechter MM, Azar-Kia B: Colloid cyst of the third ventricle. Am J Roentgenol 123: 220, January 1975.
- 8 McCormick WF, Sarwar M: The potential value of computed axial tomography to the forensic scientist. American Association of Medical Examiners, Orlando, FL., October 1976.
- 9 Sarwar M, Batnitzky S, Schechter MM: Tumorous aneurysms. Radiology 124: 565, 1977.
- 10 Sarwar M, Swischuk LE: Bilateral internal auditory canal enlargement due to dural ectasia in Neurofibromatosis. Diagnostic Radiology, Year Book of 1979: 344-345. Am J Roentgenol 129: 935-936, November 1977.

- 11 Sarwar M, Brinkman SD, Levin HS: The CT scan in the diagnosis of dementia: relationship between corticocerebral atrophy and cognitive decline in elderly normal and patient groups. Sixteenth Annual Meeting of the American Society of Neuroradiology in New Orleans, LA. February 26 – March 2, 1978. *Neuroradiology* 15: 235-239, No. 4, 1978.
- 12 Sarwar M, Brinkman SD, Levin HS: The CT scan in the diagnosis of dementia: relationship between corticocerebral atrophy and cognitive decline in elderly normal and patient groups. Sixteenth Annual Meeting of the American Society of Neuroradiology in New Orleans, LA. February 26 – March 2, 1978. *Neuroradiology* 15: 235-239, No. 4, 1978.
- 13 Brinkman SD, Sarwar M, Levin HS: Quantified computerized tomographic (CT) changes in normal aging and dementia: relationship to behavior. Gerontological Society, Dallas, Texas, November 17, 1978.
- 14 Sarwar M: Computed cranial tomography in cerebrospinal fluid cisternal disease. 64th Scientific Assembly and Annual Meeting of the Radiological Society of North America, Chicago, IL., November 26 – December 1, 1978.
- 15 Levin HS, Meyers CA, Grossman RG, Sarwar M: Planimetric measurements of lateral ventricular enlargement after closed head injury. 1980 Annual Session of Texas Medical Association, May 14-18, 1980, Houston, Texas.
- 16 Levin HS, Meyer CA, Grossman RG, Sarwar M: Planimetric measurement of lateral ventricular enlargement after closed head injury. 113th Annual Session of the Texas Medical Association, Astrohall, May 14 – 18, 1980.
- 17 Virapongse C, Rothman SLG, Kier EL, Sarwar M: Detailed analysis of computerized tomographic anatomy of the petrous bone. American society of Neuroradiology, Chicago, IL., April 5 – 9, 1981.
- 18 Sarwar M, Rothman SLG, Virapongse C, Kier EL: The facial nerve canal - - an anatomical pathological study using resolution CT. American Society of Neuroradiology, Chicago, IL., April 5 – 9, 1981.
- 19 Rothman SLG, Virapongse C, Kier EL: Sarwar M: The facial nerve canal: an anatomical pathological study using high resolution CT. American Society of Neuroradiology, Chicago, IL., April 5 – 9, 1981.
- 20 Virapongse C, Kier EL, Rothman SLG, Sarwar M: Detailed analysis of computerized tomographic anatomy of the petrous bone. American Society of Neuroradiology, Chicago, IL., April 5 – 9, 1981.
- 21 Sarwar M, Crelin ES, Kier EL, Virapongse C: Experimental spinal cord stretchability and the tethered cord syndrome. *Radiology* 144: 962, 1982.
- 22 Rothman S, Virapongse C, Kier EL, Sarwar M: High resolution CT scanning of inflammatory lesions of the petrous bone. *AJNR* 3: 92, Jan/Feb 1982.
- 23 Sarwar M, Crelin EC, Kier EL, Virapongse C: Experimental spinal cord stretchability and its relationship with the so called tethered cord syndrome. XII International Symposium Neuroradiologicum, Washington, D.C., October 10 – 16, 1982.
- 24 Sarwar M, Crelin EC, Kier EL, Virapongse C: Experimental spinal cord stretchability and its relationship with the so called tethered cord syndrome. Radiological Society of North America, Chicago, IL., November 28 – December 3, 1982.
- 25 Kier EL, Sarwar M, Virapongse C: The lumbar articular facets: New concepts based on developmental and CT study. RSNA, Chicago, IL., November 28 – December 3, 1982.
- 26 Sarwar M, Virapongse C, Bhimani S: The interhemispheric fissure sign in dysgenesis of corpus callosum. ASNR, San Francisco, CA., June 11 – 19, 1983.
- 27 Virapongse C, Bhimani S, Sarwar M, and Kier EL: High resolution computed tomometry in the development of the skull base. Presented at the American Society of Neuroradiology, 21st Annual Meeting, June 1983.
- 28 Horgan JG, Ireland D, Taylor KJW, Sarwar M, Weltin G, Kier EL: Differentiation of midbrain cystic lesions by duplex Doppler US. Presented at the Radiological society of North America Meeting, Chicago, November 30 – December 5, 1986.
- 29 Sarwar M: CT and MRI of craniofacial anomalies. Presented at the VI European Congress of Radiology, Lisbon – Portugal, May 31 – June 6, 1987.

FORMAL TEACHING OF RESIDENTS, CLINICAL FELLOWS AND RESEARCH (POST DOCTORAL)FELLOWS

Year(s):

Talk Title: CRANIAL NERVES

Institution: UT Southwestern Medical Center, Dallas, TX

Audience: Medical Students

Effort: Monthly

FORMAL TEACHING OF PEERS (CME ONLY)

Year(s): 1976

Course Name: Categorical courses on Computer Tomography

Title(s)/Topic(s) of Talks:	CT of Intracranial Metastases, September 1976.
Location:	University of Texas Health Sciences Center, Houston, Texas
Year(s):	1976
Course Name:	Categorical course on Computer Tomography
Title(s)/Topic(s) of Talks:	CT of Meningioma, September 1976.
Location:	University of Texas Health Sciences Center, Houston, Texas
Year(s):	1980
Course Name:	Department of Diagnostic Radiology, Yale University School of Medicine Imaging Update: Computed Tomography and Ultrasound with Hands-On CT Console Workshop.
Title(s)/Topic(s) of Talks:	CNS infections, October 20 -22, 1980.
Location:	
Year(s):	1980
Course Name:	Department of Diagnostic Radiology, Yale University School of Medicine Imaging Update: Computed Tomography and Ultrasound with Hands-On CT Console Workshop.
Title(s)/Topic(s) of Talks:	Cerebrovascular Stroke, October 20 - 22, 1980.
Location:	Yale University School of Medicine, New Haven, CT
Year(s):	1980
Course Name:	Lecturer
Title(s)/Topic(s) of Talks:	CT scanning in Congenital Malformations of the Brain, May 9 -11, 1980.
Location:	Robert N. Cooley Radiological Society, San Antonio, Texas
Year(s):	1981
Course Name:	Second Alumni International Symposium
Title(s)/Topic(s) of Talks:	Cranial Computed Tomography, March 4 – 6, 1981.
Location:	King Edward Medical College, Lahore, Pakistan
Year(s):	1982
Course Name:	Neuroradiology Refresher Course
Title(s)/Topic(s) of Talks:	1). Supratentorial Meningiomas 2). Posterior Fossa Extra-Axial Lesions 3). Disease of the Myelin Sheath May 1 - 2, 1982
Location:	Loyola University, Stritch School of Medicine, Oak Brook, Illinois
Year(s):	1986
Course Name:	Neuroradiology Review Course
Title(s)/Topic(s) of Talks:	Radiology of Intracranial Vascular Anomalies: CT, MRI and Angiography, May 3 -4, 1986.
Location:	Loyola University, Stritch School of Medicine, Oak Brook, Illinois

EDUCATIONAL COMMITTEE SERVICE

Departmental

<u>Year(s)</u>	<u>Name of Committee</u>	<u>Institution/Organization</u>
1988-1988	Quality Assurance Section of: Utilization Review Committee	College of Medicine at Chicago, University of Illinois
1988-1988	Committee on Continuing Medical Education	College of Medicine at Chicago, University of Illinois
1988-1988	Independent Study Program Advisory Subcommittee	College of Medicine at Chicago, University of Illinois