

ANNUAL REPORT 2009



**DEPT. OF NEUROSURGERY
MEDICAL COLLEGE
CALICUT**



HISTORY

- **The Department of Neurosurgery at Medical College Calicut, affiliated to the University of Calicut, constitutes the largest speciality division for neurological surgery in the Malabar region, and is one of the most reputed of its kind in Southern India. It is the main tertiary level referral center of the region for neurotrauma and the complex neuro-surgical maladies, with a patient population drawn in from the five northern districts of Kerala.**

- **The department was founded in 1968. Over the years, the once uninspiring and lackadaisical speciality department had evolved, integrating technology with tradition, to offer the state-of-the-art microsurgical and endoscopic solutions to a panorama of complicated disorders of the nervous system. The Department has a rich legacy to be felt proud of with some of the stalwarts in Neurosurgery like Profs. Drs. K M John, S K Ramachandran, Sanal Kumar P and Premarajamohanan K occupying the Chair in yester years.**

THE PHILOSOPHY

- **Deep-rooted and strong commitment to a comprehensive betterment of academics, in a backdrop of scientific research and deductive teaching, had paid rich dividends to the trainees and residents in Neurosurgery and the patients at large. The philosophy of working in unison with other speciality divisions of Neuromedicine, General Surgery, Orthopaedics, Radiodiagnosis, Neuropathology, Radiotherapy, Otorhinology, and Physical Medicine to offer a multidisciplinary approach to problem-solving, lies at the core of our work ethos.**

STAFF

Dr. JACOB .P. ALAPATT

MS, DNB (Surg), M.Ch.(Neuro), DNB(Neuro), FRCS

Professor and Head of the Department

Dr. Rajiv M P	Associate Professor
Dr. Premkumar S	Assistant Professor
Dr. Vijayan peettakkandy	Assistant Professor
Dr.Prakasan.K	Assistant Professor
Dr.Raja.K.Kutty	Assistant Professor
Dr. Sreekumar	Senior Resident
Dr. Pavithran V M	Senior Resident
Dr. Abdul Jaleel	Senior Resident

SERVICES

- **The Department offers a host of neurosurgical services at par with the highest standards of care in Neurotrauma, Neuro-oncology, Paediatric Neurosurgery, Cerebrovascular Microneurosurgery, Spine Surgery and Minimally-Invasive (Key-hole) Neurosurgery**

Procedures/Treatments available are/for

- **Acoustic Schwannomas**
- **Aneurysms**
- **Arnold-Chiari Malformations**
- **Arteriovenous Malformations (AVMs)**
- **Brain Tumors**
- **Cervical Disc Disease**
- **Craniofacial Anomalies**
- **Craniovertebral Junction (CVJ) Anomalies**
- **Degenerative Disc Disease**

CONTD...

- **Endoscopic Surgeries for colloid cyst, pituitary tumour and intraventricular tumours**
- **Meningiomas**
- **Myelomeningocele**
- **Neuroendoscopy**
- **Orbito-Sinusoidal tumors**
- **Pineal Tumors**
- **Pituitary tumors**
- **Skull Base Surgery**
- **Spina bifida**
- **Spinal Instrumentation**
- **Spinal trauma**
- **Spinal tumors**

CONTD..

- **Peripheral Nerve Injuries**
- **Rhizotomy**
- **Theco-peritoneal Shunts**
- **Traumatic Brain Injuries (TBIs)**
- **Trigeminal Neuralgia**
- **Ventriculo-peritoneal Shunts (VP Shunts)**
- **Brachial plexus – neurotization**
- **Stereotactic procedures**
- **Endoscopic lumbar discectomy**
- **Craniosynostosis repair**
- **Carpal Tunnel Syndrome**

OTHER DEPARTMENTAL ACTIVITIES

- **We are conducting monthly clinicopathological conference every third Thursdays in the Department of Pathology, combined neuro-medicine meeting (Neuro Club) on every Second Tuesdays at 8:00pm and weekly neuroradiology meeting at 8:00am in the Department of Radiology. Weekly Neuroanatomy and brain dissection 1:00-2:00pm on Saturdays in the Department of Anatomy.**

POST-GRADUATE TRAINING

- The Department takes in one candidate each year for the M.Ch course in Neurosurgery.
- Residents in General Surgery, ENT, Psychiatry, OMFS and Neuromedicine are accorded training as part of their specialty rotation postings.

PUBLICATIONS

- **The Department has to its credit a number of scientific papers published in various journals of national and international repute, which attest to its commitment to clinical research and academic excellence.**

SCIENTIFIC PAPERS

1. **Congenital Dermal sinus: Poor Awareness Leads to Delayed Diagnosis. Ramnarayanan, Anto, Alapatt ? Childs Nervous System (European Society Journal for Paediatric Neurology - Accepted for Publication) 2005**
2. **Anterior Cervical Discectomy for Spondylotic Myeloradiculopathy ? The Journal of Calicut Ortho Alumni Association Vol.1, No.3, Pages 47 to 50 Oct-Dec 2003.**
3. **Scimitar Sacrum ? Neuroimage. Neurology India Vol.52, Issue No.2, June 2004.**
4. **Falcotentorial Plasmacytoma ? A Case Report. Surgical Neurology. 2004 Aug; 62(2): 178-9**
5. **Calvarial Tuberculosis: A Case Report. Vol.52, Issue No.2, June 2004.**

- 6. Cranioplasty ? A Review Article ? Indian Journal of Plastic and Reconstructive Surgery Vol.35 No: 2 Dec 2002, P 95-108.**
- 7. Delayed Extradural Haematoma ? A Case Report. Neurology India Volume 50; No.3 September 2002.**
- 8. Growing Intracerebral Haematoma ? A Case Report, Journal of the Indian Medical Association**
- 9. Ectopic Meningioma? A Case Report, Neurology India.**
- 10. Cerebral Toxoplasmosis in a Patient with AIDS ? Letters to the Editor, Indian Journal of Radiology & Imageology, 9: 4; 202-203.**
- 11. Cerebral Toxoplasmosis ? A Case Report, Neurology India, March 2000.**

- 12. Approaches to Malignant Lesions of Skull Base. Progress in Clinical Neurosciences, 1997, Chapter 23, P.303-316.**
- 13. Giant Cell Reparatory Granuloma of Facial Bones, British Journal of Neurosurgery, February 1992.**
- 14. Colloid Cysts of the Third Ventricle, Kerala Medical Journal, 1991.**
- 15. OPLL ? A Rare Cause of Cervical Myelopathy, Kerala Medical Journal, January, 1991.**
- 16. Metastasis of Carcinoma Breast to an Intracranial Meningioma, Neurology India, 1990.**
- 17. Intradural Disc Rupture L4-L5 Level, Neurology India, 1990.**

Text Books

- **A Colour Atlas on Cranio-Cerebral Trauma**
- **ISBN No.81-7179-914-9. (Funded by the National Book Trust, New Delhi)**

Papers Presented at Various Forums

- **Epidermoid Cysts ? 25 years Experience, 39th Annual Conference of the Neurological Society of India, 1990.**
- **Ultrasound Study in 25 cases of Myelomeningocele, 40th Annual Conference of Neurological Society of India, 1991.**
- **Cerebral Toxoplasmosis ? A Case Report, 47th Annual Conference of NSI, 1998.**
- **Autologous Bone-grafts for Skull Defects, Annual Conference of NSI State Chapter, Cochin, 1999.**
- **Cranioplasty in Skull Defects, 48th Annual Conference of Neurological Society of India, December 1999, Hyderabad**
- **Subarachnoid Hemorrhage ? Our Initial Surgical Experience, Annual Conference of NSI Kerala Chapter, Calicut, March 2000.**
- **Anterior Cervical Discectomy in Cervical Spondylotic Myelopathy, Annual Conference of NSI Kerala Chapter, Calicut, March 2000. (*Best Paper Award for the year 2000*).**
- **The Biomechanics of Head Injuries Due to Falling Coconuts ? A Retrospective Analysis, 5th World Conference of Injury, Prevention and Control, New Delhi, March 2000.**

- **Myths and Facts about Helmets ? Neurosurgeon's Perspective, 5th World Conference of Injury, Prevention and Control, New Delhi, March 2000.**
- **Retrospective Analysis of Fatal Head Injuries ? 100 Consecutive Cases with Special Reference to Autopsy Studies, 5th World Conference of Injury, Prevention and Control. New Delhi, March 2000.**
- **The Golden Rules in Head Injury, 5th World Conference of Injury, Prevention and Control. New Delhi, March 2000.**
- **Diffuse Axonal Injury and Hypoxic Brain Injury - A Histopathological Study. Golden Jubilee Annual Conference of Neurological Society of India, December 2001, Mumbai.**
- **Lumbar Disc Prolapse with Sphincter Involvement ? Calicut Experience, National Spine Conference, Kodaikanal 2001.**
- **Subarachnoid Haemorrhage ? Our Initial Experience, Indian Society of Cerebrovascular Surgery, 2nd Annual Conference, Cochin, December 2002.**
- **Subdural Empyema ? A Prospective and Retrospective Study, 51st Annual Conference of Neurological Society of India, December 2002.**

- **Intracranial Rosai-Dorfman Disease - A Rare Entity, 51st Annual Conference of Neurological Society of India, December 2002.**
- **Acute Subdural Hematomas ? A Five Year Retrospective Study, 51st Annual Conference of Neurological Society of India, December 2002.**
- **Extradural Arachnoid Cysts of the Spinal Cord ? A Case Report, Annual Conference of NSI Kerala Chapter, Kottayam, February 2003.**
- **Neurenteric Cysts of the Spinal Cord ? A Case Report, Annual Conference of NSI Kerala Chapter, Kottayam, February 2003.**
- **Neuroendoscopy ? Our Initial Experience, Midterm Conference of NSI Kerala Chapter, Perinthalmanna, October 2003.**
- **Acoustic Schwannomas ? A Retrospective Study, Midterm Conference of NSI Kerala Chapter, Perinthalmanna, October 2003.**
- **Rare Intramedullary Lesions, Midterm Conference of NSI Kerala Chapter, Perinthalmanna, October 2003.**
- **Spontaneous Subarachnoid Haemorrhage ? Our Initial Experience from Medical College, Calicut, NSI Annual Conference, Chandigarh, December 2003.**
- **Trans-lamina terminalis Approach to Retrochiasmatic Lesions, NSI Annual Conference, Chandigarh, December 2003.**

- Spinal Arachnoid Cyst ? 3 Case Reports, NSI Annual Conference, Chandigarh, December, 2003 (poster presentation).
- CSF Rhinorrhoea ? Combined Intradural ? Extradural Repair, NSI Annual Conference, Chandigarh, December, 2003 (poster presentation).
- Ventriculoscopy ? A Good Approach for Thalamic lesions, Mid term Conference, Vaikom 2004.
- ?Two Rare Congenital Anomalies ? Cervical Meningocele and Hemimegalencephaly?, Neurocon, Thrissur, 2005.
- ?All that is Black is Not Melanin?, Neurocon, Thrissur, 2005.
- ?Third Ventriculostomy and Biopsy of Thalamic Lesion? - Video Presentation, Neurocon, Thrissur, 2005.
- ?Rhizotomy for Spasticity - A Case Report? - Dr Prem Kumar S, Dr Jacob Alapatt; Mid-term Neurocon, Thiruvalla, 2005.
- ?Plagiocephaly ? A Case Report? ? Dr Ramesh C V, Dr Jacob Alapatt, Mid term Neurocon, Thiruvalla, 2005.
- ?Two Cases of Sacrococcygeal Chordoma?, Dr Radhakrishnan M, Dr Jacob Alapatt; Mid-term Neurocon, Thiruvalla, 2005
- Post-Op Angios in Aneurysm Surgery, Callosum 06 - Annual Conference of NSI Kerala Chapter, Cochin April 2006

- **?Endoscopic Excision of Colloid Cysts? ? Dr.Radhakrishnan M, Dr.Jacob P Alapatt, 2nd Best Paper Award.**
- **?Post-op Angios in Aneurysm Surgery? - Dr. Tharun Krishna, Dr. Jacob P Alapatt, Callosum 2006 ? Annual Conference of NSI Kerala Chapter, Cochin, Fen 25-26, Taj Residency, Cochin.**
- **?Endoscopic Surgery for Colloid Cysts? - Prof. Jacob P Alapatt, Dec. 20-23. Neurocon 2006 ? 55th Annual Conference of NSI, Madurai.**
- **?Fusiform Aneurysm of Cerebral Vasculature: Contentions and Dilemmas in Management? - Dr. Tharun Krishna, Prof. Jacob P Alapatt. Award Paper at the 4th South Asian Neurosurgical Congress (SANC 2007), Feb 16-18, India Habitat Centre, New Delhi.**
- **?Vision Improvement After Trans-sphenoidal Surgery ? Our Initial Experience? - Dr. Radhakrishnan M, Prof. Jacob P Alapatt, NSI Kerala Chapter, Annual Conference, March 1, Pagoda Resorts, Alleppey.**
- **?Five Year Retrospective Analysis of Acoustic Schwannoma ? Calicut Experience? - Dr. Prem Kumar S, Prof. Jacob P. Alapatt; NSI Kerala Chapter, Annual Conference, March 1, Pagoda Resorts, Alleppey.**
- **Our initial experience in Stereotactic surgery – 18 case series – National Stereotactic surgery at Vellore 2009.**

Guest Lectures

(delivered by Prof. Jacob P. Alapatt)

- **?Head Trauma? ? Golden Jubilee CME of Dept. of Anaesthesiology, CMC at IMA Hall, Calicut March 25, 2007.**
- **?Neuroendoscopy - A Necessity in Our Armamentarium? - NSI Mid-term Meet, Oct 22 nd 2006 Kollam**
- **?Surgical Management of Spontaneous Intracerebral Hemorrhage? ? 26th August 2006, IMA Calicut.**
- **?MINS? ? Ehrlichs Society Meet**
- **?Traumatic Brain Injury? ? Annual Conference of the Indian Society of Physiotherapists ? Kerala Chapter., Calicut**

- **?Clinico-radiological Correlation of Benign CNS Tumours? ?
Calicut Pathology Club Meeting**
- **?Hydrocephalus in Children - Management Algorithms? ? Child
Neurology Update 2006 of Calicut Neurological Society, 02 April
2006, Calicut.**
- **?Tribute to a Legend: A Eulogy on Prof. M. Sambasivan? ?
Callosum 2006, Annual Conference of the NSI Kerala Chapter,
February 2006, Cochin**
- **?Neuroendoscopy - Present and Future?, Calicut Surgical Club,
Jan 10, 2006, Calicut**
- **Surgical Interventions in Pain Management, CME on Pain,
Physiatrists Society, December 2005, Calicut,**

- **Chair person for the session - ?Venous Considerations in Lateral Skull Base Approaches? by Katsumi Sakata, International Skull-Base Surgery Conference, Cochin, November 2005**
- **Methods of Brain Relaxation in Surgery for CP Angle Lesions? at Neurocon, Trichur, 2005**
- **Acoustic Neuroma, Annual Conference of AOI, Malabar branch, May 2003.**
- **Head Injury, CME Session of IMA State Conference, November 2000, Thiruvananthapuram.**
- **Peripheral Nerve Repair - Surgical Aspects, National Annual Conference of Physiatrists, Calicut, 2000.**
- **ICP Monitoring in Neurosurgery, CME on Recent Advances in Neurology, Pediatric Neurosurgical Update, Trivandrum, 1998.**

RESEARCH

- **The Department has successfully completed the following research projects:**
 - Congenital Hydrocephalus
 - Anterior Cervical Discectomy ?Clinico-Radiological Correlation (Project funded by the State Board of Medical Research)
 - Subarachnoid Hemorrhage
 - Correlation between CT Scan and Post-mortem Finding in 200 Consecutive Cases of Trauma

The Department is designated a collaboration center for the following international trials:

Completed Project:

• **CRASH Trial I (Methyl Prednisolone in Severe Head Injury)**

[Coordinated by the London School of Tropical Medicine and Hygiene, London,UK]

Ongoing Projects :

• **CRASH II Trial (Tranexamic Acid in Post-Traumatic Hemorrhage)**

[Coordinated by the London School of Tropical Medicine and Hygiene, London,UK]

• **Genetics of Intracranial Aneurysms and Subarachnoid Hemorrhage**

[Collaboration with Rajiv Gandhi Centre for Biotechnology, Trivandrum]

THE FUTURE

- **Neurosurgery as a specialty has come of age at the Calicut Medical College with the recent acquisition and incorporation into our routine an array of neuro-instrumentation which include:**
 - ? **Neurosign Intra-op Nerve Monitoring System**
 - ? **Ultrasonic Surgical Aspirator**
 - ? **Rimed Trans-Cranial Doppler System**
 - ? **Schmitz Modular operating table**
 - ? **CRW Stereotactic System**
 - ? **A second operation unit of Carl Zeiss with neuronavigation.**
- **The Department is piquantly poised at the edge for the proverbial quantum leap, taking the practice of Neurosurgery to the next level, an exiting high world hitherto undreamt of in the Government health-care scene of Kerala.**

CONTACT US

Department of Neurosurgery
Medical College, Calicut - 673 008, Kerala, India
Phone : 91-495-2356532, 2357539; Extension - 374, 384
E-mail : calicutneuro@gmail.com

Dr. Jacob P. Alapatt	94470 02931 0495-2354353 (Res) drjacobalpatt@yahoo.com
Dr. Rajeev M P	9846 032431
Dr. Prem Kumar S	9847 138846
Dr. Radhakrishnan K	9846 280440
Dr. Vijayan P	9847 880099
Dr. Pavithran V M	9446 391620
Dr. Abdul Jaleel	9446 246812

MONTH WISE ACTIVITIES - 2009

Month	OP Register			IP Register			HICU
	New	Review	Total	Direct	Transfer in	Total	
Jan.	153	294	447	29	25	54	35
Feb.	108	331	439	30	28	58	29
March	125	298	423	33	27	60	36
April	122	352	474	38	22	60	41
May	122	355	477	23	32	55	41
June	94	380	474	38	24	62	35
July	145	282	429	27	24	51	30
Aug.	179	309	488	29	20	49	31
Sept.	191	299	500	25	26	51	30
Oct.	278	400	678	33	19	52	28
Nov.	187	382	569	23	30	53	28
Dec.	280	410	690	36	33	69	29
Total	1984	4092	6088	354	310	674	393

Total IP = 1067

Total no.of staff 6/12

No.of patients per staff = 178

SURGERIES - 2009

Month	Elective surgeries		Emergency surgeries		Death	
	Major	Minor	Trauma	Non trauma	Elective	Trauma
Jan.	4	2	7	36	1	5
Feb.	23	7	8	26	0	12
March	26	4	11	27	0	8
April	17	9	13	33	3	13
May	20	3	11	30	3	6
June	20	0	11	37	1	6
July	20	2	8	40	7	4
August	20	6	6	19	4	4
Sept.	19	2	9	20	2	5
Oct.	22	3	8	25	1	3
Nov.	28	3	13	22	0	4
Dec.	20	3	14	27	1	5
Total	229	44	119	342	23	75

CONSULTATION IN VARIOUS DEPARTMENTS INCLUDING IMCH-2009

January	382
February	265
March	305
April	359
May	292
June	322
July	316
August	339
September	329
October	365
November	367
December	420
Total	4061