

## Bio-Data

### MR 04979 P Brig (Dr ) Sankar Prasad Gorthi

MD. DNB (Gen Med) DM (Neurol)AIIMS FAAN (USA) NSC (Neurology) UK

Date of Birth: 18 April 1957  
Place of Birth: Visakhapatnam, AP  
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### Highlights of service Profile

- (a) **Jan 1984-1988**: Joined the Armed Forces and served as a *Medical Officer* at various locations.
  - (i) Military Hospital Secunderabad,
  - (ii) Garwhal Scouts- C/O 56APO,
  - (iii) Military Hospital, Bareilly (UP)
- (b) **April 1988-1990**: Post Graduate resident (Internal Medicine), Army Hospital (R&R), New Delhi, India
- (c) **June 1990- April 1997**: Served as *Medical Specialist* (Physician) at various Armed forces hospitals
  - (i) Army Hospital (R&R),
  - (ii) Military Hospital Secunderabad,
  - (iii) 180 MH C/O 99 APO,
  - (iv) Military Hospital, Varanasi.
- (d) **June 1997- June 1999**: Study leave-Two year *senior residency DM Neurology* at All India Institute of Medical Sciences, New Delhi, India.
- (e) **July 1999- April 2004**: *Classified specialist Neurology and General Medicine* Base Hospital Delhi Cantt (A thousand Bed hospital and single Neurologist)
- (f) **May 2004-Jan 2007**: *Classified Specialist Neurology and Medicine* Command Hospital (SC) Pune and, *Associate Professor of Medicine*, Armed Forces Medical College, Pune
- (g) **Jan 2007- Jan 2010**: Senior Advisor Med & Neurology, Prof Of Medicine Armed Forces Medical College, Pune
- (h) **Jan 2010 –Mar 2011**: Senior Advisor Med & Neurology CH (CC) Lucknow
- (i) **April 2011-April 2016**: *Prof & HOD Department of Neurology* Army Hospital Research and Referral, Consultant Medicine & Neurology Army Medical Corps, New Delhi-11010

- (j) **May 2016 – December 2019:** Professor and HOD, Department of Neurology, Kasturba Medical College & Hospital, MAHE, Manipal.
- (k) **January 2020 – Till Date:** Present appointment - Professor and HOD, Department of Neurology, Bharati Hospital & Research Centre, Bharati Vidyapeeth (Deemed to be University) Medical College & Hospital, Pune.

## 2. **Overseas experience**

- (a) Visited Dharan Nepal as a part of Indian Pension Paying Team for four weeks 1993 Sep and attended to many ex-servicemen and civilian personnel.
- (b) Visiting Fellow ship and clinical attachment in National Hospital for Neurology, Neurosurgery, Queen Square London UK July-Sep 2004. Trained in Neuroradiology under Prof T.Usry and In Movement Disorders under Prof N Quinn and Dr Kailash Bhatia
- (c) Presented four research papers at World Congress of Neurology in Nov 2005 at Sydney Australia.
- (d) Presented original research work of autologous stem cell therapy in Traumatic paraplegia in 17<sup>th</sup> Asia Pacific Military Medicine Conference at Singapore 14 April 2008
- (e) Presented original research in 66<sup>th</sup> Annual conference of American Academy of Neurology 26<sup>th</sup> April to 03 May 2014 at Philadelphia US
- (f) Observership in Movement Disorder at the National Hospital for Neurology and Neurosurgery, Queen Square, London from April 01, 2017 to April 30, 2017.
- (g) Completed the Certificate Course in Biostatistics, Epidemiology & Research Methodology conducted by the Department of Statistics, MAHE, Manipal from August 2017 to January 2018.

## 1. **Academic Achievements and Activities**

### (a) **Education**

- (i) **Osmani Medical College, Hyderabad, Andhra Pradesh India (April 1976-1982) MBBS (Bachelor of Medicine and Bachelor of Surgery).**
  - (ii) **Army Hospital Research and Referral, New Delhi, India (1988-1990) Delhi University MD (Doctor of Medicine)**
  - (iii) **National Board Examinations, New Delhi (Aug 1990) DNB (Diplomate National Board) (Gen Med)**
  - (iv) **All India Institute of Medical Sciences, New Delhi, India (June 1997-1999) DM (Neurology)**
- (b) **The following Post Graduate students & Registrars have been trained in respective Institutions and their Dissertation work.**

Sl No	Institution	year	Name of Doctor	Topic
<b><u>Resident doctors and their dissertation topics- MD General Medicine</u></b>				
1	AFMC& CH(SC)	2005	Nitul Bewal	Sural Nerve biopsy based study of Peripheral neuropathy.
2	AFMC& CH(SC)	2006	Dheeraj Nauwar	A RCT of GCSF in acute ischemic stroke
3	AFMC& CH(SC)	2007	Sonam S	Validation of stroke scales for AIS
4	AFMC	2008	Shaman Gill	Blood pressure in stroke
5	AFMC	2009	Nitin Sharma	A cross sectional analytical study of Cognition in Neuro-AIDS
<b><u>Registrars and their Dissertation topics- DNB Neurology</u></b>				
1	AHRR	2011	A Mukherjee	NMO spectrum disorders in Myelopathy
2	AHRR	2011	D Mitra	Risk stratification of Acute ischemic Stroke-Hypertension.
3.	AHRR	2012	R. Srinath	The correlation of Blood pressure on admission and outcome measure at 90 days in cases of spontaneous hypertensive intracerebral hemorrhage (sICH).
4.	AHRR	2012	Rima Rampal	Cognitive decline in patients of Multiple sclerosis after over the course of 6 months.
5.	AHRR	2013	Vikram Asturkar	The prognostication of ischemic stroke outcome based on the stroke volume.
6.	AHRR	2014	Sitla Prasad P	A randomized control trial of GCSF, Infarct volume and Functional outcome.
7.	AHRR	2015	Harsh Bhardwaj	Predictors of early chest infection and their impact on functional outcome in acute ischemic stroke.
8.	AHRR	2015	Shaman Gill	Prospective validation of ICH score for Three months functional outcome.
9.	KMC, Manipal	2015	Gautam G	Effect of virtual reality exercises in conjunction with transcranial direct current stimulation therapy (tDCS) on postural stability and gait in stroke patients.
10.	KMC, Manipal	2015	Sripad S	An observational study on Low Molecular Weight Heparin (LMWH) versus Unfractionated Heparin (UFH) therapy, in the treatment of Cerebral Venous Sinuses Thrombosis (CVST) in young adults.
11.	KMC, Manipal	2016	Ranjith G	Clinical profile and etiological analysis of inflammatory demyelinating disease of central nervous system in south coastal Karnataka.
12	KMC, Manipal	2016	Gautham Kumar	Prevalence of cognitive impairment and dementia after intra cerebral haemorrhage (ICH).
13.	KMC, Manipal	2017	Jaidipkumar	Validation of DSM V neurocognitive disorder criteria in clinically suspected patients with neurocognitive impairment.
14.	KMC, Manipal	2017	Manasa	A study of carotid artery disease in ischemic stroke.
15.	KMC, Manipal	2018	Sandeep G	Assessment of the prognosis of cerebral sinus venous thrombosis with a CSVT prognosis scale devised in a tertiary health care hospital at KMC Manipal in south-western Karnataka.

16. KMC, Manipal 2018 Umesh B Role of Collaterals in CT Angiography in Predicting Functional Outcome in Patients with Acute Anterior Ischemic Stroke.
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AFMC: Armed Force Medical College Pune  
CH (SC): Command hospital (Southern Command) Pune  
AHRR: Army Hospital Research and Referral Delhi cant  
KMC: Kasturba Medical College & Hospital, Manipal

## 2. Awards and fellowships

- (a) National merit Scholarship (1976)
- (b) Distinction in Pharmacology, II MBBS Exam, OMC, Hyderabad (1978)
- (c) **ML Soni award for being best resident in DM Neurology, AIIMS 1999**
- (d) GOC-in-C (WC) Commendation for outstanding service, Base Hospital, Delhi Cantt (2003)
- (e) **Best Research-paper award Indian Academy of Neurology annual conference Sep 2001** – Neurological Manifestations of Acquired Immuno Deficiency Syndrome
- (f) Indian Academy Of Neurology visiting Fellow ship to National Hospital for Neurology and Neurosurgery Queen Square, London UK (2004)- Special training in Movement disorders and Neuroradiology
- (g) Chief of Army Staff Commendation Card for outstanding service, Army Hospital Delhi Cantt Dec 2012
- (g) **8<sup>th</sup> International prestigious Sardar Patel Award for Excellence in Neurosciences** Research, a life time achievement award. 08 Feb 2014
- (h) An appreciation by Association of Indian Neurologists in America (AINA) for contribution to Neurosciences in 31<sup>st</sup> Annual meeting of AINA held in 66<sup>th</sup> Annual Conference Of American Academy of Neurology AAN 2014 at Philadelphia US 26 April to 03 May 2014

## 3. Orations

- (a) Prof B Dayanand Rao oration in Annual conference of Andhra Pradesh Neuroscientists Association annual conference (apneurocon 2011)at Hyderabad 23July 2011 Topic: “Critical Appraisal Of Medical Literature for Neuroscientists”

## 4. Research projects

- (i) The Syndrome of raised intracranial tension without localizing neurological signs – Etiological factors in Indian subcontinent (1990)

- (ii) Profile of Guillian Barre syndrome (1994)
- (iii) Tiagabine in Refractory epilepsy and cognitive function assessment. A prospective cohort study (1997)
- (iv) Association of campylobacter jejuni and acute idiopathic demyelinating polyradiculopathy a case-control study (1997-99)
- (v) Profile of Neurological manifestations of Acquired Immuno Deficiency syndrome Clinico-pathological correlation (1999-2000)
- (vi) Profile of Neurological manifestations of Acquired Immuno Deficiency syndrome Clinico-immunological correlation (2000-2001)
- (vii) Profile of Neurological manifestations of Acquired Immuno Deficiency syndrome Clinico-radiological and spectroscopic correlation (2000-2003)
- (viii) Electrophysiological studies in NeuroAIDS 2003-2007
- (ix) Early simple bedside evaluation using simple bed side tests in Neuro-AIDS patients 2003-2009
- (x) A profile prothrombotic states in cases of Stroke in Young (2001-2003)
- (xi) Autonomic Nervous system Dysfunction in Elderly (ICMR project) 2004.
- (xii) Assessment of Peripheral neuropathy- sural nerve biopsy based study (Departmental Project and MD thesis 2004-7).
- (xiii) Role Granulocyte Colony stimulating factor therapy in acute ischemic stroke- A randomized trial MD thesis and Departmental project (2006-2009)
- (xiv) Stem cell therapy in acute ischemic stroke (2006 – ongoing a DBT Project – Project Investigator from AFMC till Jan 2010)
- (xv) Autologous bone marrow mononuclear cell therapy in cases of Motor Neuron Disease, Spinal trauma and muscular dystrophy (2006-2010)
- (xvi) Botulinum toxin therapy and Follow up in various movement disorders (2004- 2010)
- (xvii) Studying the natural history of HIV infection; creating a longitudinal databank. Research project at Armed Forces Hospital, New Delhi. Funded by a grant from AFMRC (Armed Forces Medical Research Council).
- (xviii) Clock Drawing in Various neurological Disorders (ICMR Project)
- (xix) Stroke prognostication- A cohort study MD Thesis and Departmental project AFMC 2008-2009
- (xx) Acute Stroke and Hypertension- A cross-sectional study MD thesis and departmental project AFMC 2009-2010

- (xxi) To Study the Clinical Effects of “Granulocyte Colony Stimulating Factor” Administration in Patients with Acute Ischemic Stroke within Seven days of Onset. AFMRC Project No: 3624/2007-2010
- (xxii) Autologous bone marrow mononuclear cells for patients with Motor Neuron Disease-Safety and Feasibility study. (2007-2011)AFMRC PROJECT NO : 3623/2007
- (xxiii) A Cross Sectional Analytical Study of Cognitive Function in HIV Positive Individuals MD Thesis and Departmental project (2009-2011)
- (xxiv) Evaluation of degenerative value of NMO antibodies inflammatory demyelinating disease of CNS 2011-2013 (DNB Neurology) Thesis Lt Col A Mukherjee
- (xxv) Risk stratification of Acute Ischemic Stroke – Hypertension DNB (Neurology) 2011-2013 Thesis Lt Col D Mitra.
- (xxvi) The correlation of blood pressure on admission and outcome measure at 90 days in cases of spontaneous hypertensive ICH 2012-2014 DNB Neurology Thesis Lt Col Srinath R
- (xxvii) Cognitive decline in patients of multiple sclerosis over the course of 6 months 2012-2014 DNB Neurology Thesis Dr Rima Rumpaul
- (xxviii)The prognostication of ischemic stroke outcome based on the stroke volume 2013-2015 DNB (Neurology) Thesis Lt Col Vikram Asturkar
- (xxix) A Randomized control trial of Granulocyte colony stimulating factor (G-CSF) infarct size and functional outcome 2014-2016 DNB (Neurology) Thesis Dr S P Pathak
- (xxx) An observational study on Low Molecular Weight Heparin (LMWH) versus Unfractionated Heparin (UFH) therapy, in the treatment of Cerebral Venous Sinuses Thrombosis (CVST) in young adults – DM (Neurology) Thesis Dr. Sai Sripada Rao 2017.
- (xxxi) Effect of virtual reality exercises in conjunction with transcranial direct current stimulation therapy (tDCS) on postural stability and gait in stroke patients – DM (Neurology) Thesis Dr. Gundabolu Gautham 2017.
- (xxxii) A study on clinical features, radio diagnostic profile, laboratory changes and treatment pattern in tuberculous meningitis (TBM) – PhD Thesis Ms. Reshma Susan Reji 2017.
- (xxxiii) Investigation of neurodegeneration associated with defective DNA break repair – PhD Thesis Ms. Sima Chaudhari 2017.
- (xxxiv)Assessment of various risk factors and Association of these risk factors with Stroke in South Indian Patients - PhD Thesis Ms. Shilpa Sunder 2017.
- (xxxv) Qualitative & Quantitative analysis of Gut microbiome in Parkinson’s Disease – PhD Thesis Mr. Sujith Pavan 2018.
- (xxxvi)Clinical & kinematic measures for predicting upper extremity recovery in stroke survivors – PhD Thesis Ms. Sanjukta Sardesai 2018.

- (xxxvii) Prognostication of Acute Ischemic stroke by developing a prognostic index based on clinical characteristic and stroke volume assessment – PhD Thesis Ms. Priyanka 2019.
- (xxxviii) Prognostication of Acute Ischemic Stroke (AIS) in anterior cerebral circulation based on the distribution of cerebral collaterals and Clot burden on CT Angiography studies – PhD Thesis Ms. Krithishree 2019.
- (xxxix) Artificial intelligence enabled acute ischemic stroke infarct volume estimation and intracranial emergent large vessel occlusion quantification – PhD Thesis Mr. Srinivas Rao Kundeti 2019.

## 5. **Research projects**

### (a) **Principal investigator**

- (i) Role Granulocyte Colony stimulating factor therapy in acute ischemic stroke- A randomized trial.
- (ii) INVEST Trial - A multicentric randomized double blind study sponsored by Department of Biotechnology- Stem cell therapy in acute ischemic stroke.
- (iii) Prognostication of ischemic stroke outcome based on the stroke volume- A collaborative trial with INMAS New Delhi.
- (iv) Establishment of the Indian Stroke Clinical Trial Network (INSTRuCT) – ICMR funded research project.
- (v) Secondary Prevention By Structured Semi-Interactive Stroke Prevention Package in INDIA (SPRINT INDIA) Study – ICMR funded research project.
- (vi) Enhanced Control of Hypertension and Thrombolysis Stroke Study (ENCHANTED).
- (vii) Remote Ischaemic conditioning and Fentanyl as an adjunct to the Reperfusion therapy in Hypoxic ischaemic Brain Injury post Cardiac Arrest (RESURRECT) Study 2017 – 2019.
- (viii) Fever, hyperglycemia, swallowing and hypertension management in acute stroke: A cluster randomized controlled trial (Indian Quality Improvement in Stroke Care study) (FeSSH) – ICMR funded research project.

## 6. **Activities**

- (i) **Active member of all the enumerated below:-**
  - (aa) Life member **API** (Association of physicians of India),
  - (ab) Life member **IACM** (Indian Academy of Clinical Medicine),
  - (ac) Life member **IAN** (Indian Academy of Neurology),

- (ad) Life member **NSI** (neurology Society of India), IEA (Indian Epilepsy Association),
- (ae) Life member **DNA** (Delhi Neurology Association),
- (af) Life member **PNA** (Pune Neurology Association)
- (ag) Life Member Indian Stroke Association,
- (ah) Life member Cerebrovascular Subgroup **IAN**,
- (ai) Life member Tropical Neurology subgroup **IAN**,
- (aj) Life member of Movement disorder group of **IAN**,
- (al) Life Member of Association of Indian Neurologists in America (**AINA**)
- (ak) Secretary Society for Neurosciences group **Pune** (SNP- 2007- 2008)
- (al) Founder member of Society for Evidence based Health care.

7. **Workshops:**

- (a) Symposium Evidence Based Medicine at Annual Conference of Neurology Society of India Bombay Dec 2001 (Faculty)
- (b) Workshop on Research Methodology at APICON 2004, Jan: APICON Hyderabad, 2004 (Organizer and faculty)
- (c) Workshop on Research Methodology at Army Hospital Delhi Cantt Feb 2004 (Organizer and faculty)
- (d) Symposium on Stroke Management AFMC Pune May 2005 (Organizer and faculty)
- (e) Facilitator for National Research Methodology Workshop held at AIIMS 13-15 Nov 2005
- (f) Workshop on movement disorders Jan 2007 AFMC Pune (Faculty and organizer)
- (g) Workshop on Critical Appraisal of Medical Literature at Armed Forces Medical College Pune on 07 Sep 2011. (Faculty)
- (h) Workshop on ‘Clinical Research’- How to conduct clinical trials 19<sup>th</sup> Annual conference of Indian Academy of Neurology Pune 25 Sep 2011 Breakfast session (Faculty).
- (i) Workshop on Electrophysiology (pre conference, National Neurosciences Update- NNUD 2012) at Army Hospital (Research &Referral) Delhi Cantt-10 on 16 Nov 2012
- (j) Workshop on Intracranial Pressure Monitoring (pre conference, National Neurosciences Update- NNUD 2012) at Army Hospital (Research &Referral) Delhi Cantt-10 on 16 Nov 2012
- (k) Botulinum Toxin Workshop - 2nd Annual Conference of the Movement Disorder Society of India (MDSI) at Bangalore from 06.01.2017 to 08.01.2017.
- (l) The Pre-Conference Workshop of AP & TS NEUROCON 2017 on (a). Basics of Botulinum toxin & injection technique. (b). Post stroke spasticity – Upper Limb. (c). Post stroke spasticity – Lower Limb. (d). Cervical Dystonia at Nellore on 09.06.2017.



- (m) Residents' Symposium at the 25th Annual National Conference of the Indian Academy of Neurology on 08.09.2017.
- (n) Botulinum Toxin Workshop at Vizag Neuroclub Meet, Geetam University, Vizag on 25.11.2017.
- (o) Evidence Based Medicine Workshop at AIIMS, New Delhi, from 28th February to 1st March 2018.
- (p) Vertigo Workshop-2019 at KMC, Manipal, on 2<sup>nd</sup> June 2019.
- (q) Training Workshop - FeSSH Trial at KMC, Manipal & Dr. TMA Pai Hospital Udupi, from 6<sup>th</sup> to 8<sup>th</sup> August 2019.

8. **Organizing Secretary**

- (a) National Medicine Update (NNUD-2007) in Life Style Diseases 27-28 Oct 2007 AFMC Pune
- (b) National Organizing Secretary For 57th Annual Conference of Neurology Society of India 2008 held at AFMC PUNE 17-20 Dec 2008
- (c) National Neurosciences Update-12(NNUD), 17-18 Nov 2012 AHRR.
- (d) Neurosciences Quiz on 30.09.2016 at KMC, Manipal.
- (e) Walkathon-A Stroke Awareness Initiative on 21.10.2016 at KMC, Manipal.
- (f) CME on Stroke organized on 25.03.2017 at KMC, Manipal.
- (g) Stroke Symposium – Acute Ischaemic Stroke organized on 23.06.2017 at KMC, Manipal.
- (h) SMARA - a brain quiz for the brainy: prelims conducted on 31 Aug 2017 at KMC, Manipal.
- (i) Stroke Quiz on 28.10.2017 at KMC, Manipal.
- (j) Update on stroke research recovery on 31.10.17 and delivered a lecture on 'Stem cell research in stroke'.
- (l) Epilepsy Update-2018: One day CME on Recent Advances in Epilepsy on 26.05.2018.
- (m) KMC Stroke CME-2018 (One day CME on Recent Advances in Stroke) conducted on 24.06.2018.
- (n) Neurosciences Quiz–2018 on 28.10.2018 at KMC, Manipal.
- (o) Stroke Symposium on 27.11.2018 and delivered a talk on “Decompressive hemicraniectomy”.

- (p) Alumni Meet on 14<sup>th</sup> & 15<sup>th</sup> December 2018.
- (q) Dementia Symposium on 29.12.2018 and delivered a talk on “Current concepts and approaches to Dementia”.
- (r) EBMCON-2019 Annual conference of Society for Evidence Based Health Care from 2<sup>nd</sup> to 4<sup>th</sup> January 2019.

9. **Editorial Work**

- (a) Editor- Emergencies in Medicine- Proceedings of Medicine Update Base Hospital Delhi Cantt Nov 2003
- (b) Co-Editor. Medicine Update Book. Proceedings of scientific sessions; Annual Conference of Physicians Of India (APICON) 2004, Jan, Hyderabad.
- (c) Editor - Saturday Clinics of Medicine Army Hospital R&R Delhi Cantt.
- (d) Co-editor Neurology Clinics of Army Hospital Research and Referral Delhi Cantt 2012
- (e) Editor – Clinical Proceedings in Neurosciences, March 2017, KMC-Manipal.
- (f) Editor – Parkinson’s Disease in India-From Clinic to Bench, February 2019, KMC, Manipal.

10. **Publications**

(a) **Full text articles**

Satyanarayana S, **Gorthi SP** et al Disseminated Cysticercosis **J Assoc Physicians India 2002 Sep: 50: 1180-2**

Sayal SK, **Gorthi SP**, Sanghi S Herpes zoster with myelopathy in a HIV positive man **Ind J Dermat 2003 April 48(2) 120**

**Gorthi SP**, Mukherjee JD, Singh KK, Goel M -Homocystein and Stroke. *J Int med Sci Aca* 2004, 17 92), 84-6

Batra A, Tripathi RP, **Gorthi SP** Magnetic resonance evaluation of Cerebral toxoplasmosis in patients with acquired immuno deficiency syndrome **Acta Radiol, 2004 Apr 45 (2) 212-21**

Sharat Johri, **SP Gorthi** , AC Anand-Meningococcal meningitis **Medical Journal Armed Forces India 10/2005; 61(4):369-374.**

**Gorthi SP**, Shankar S, Johri S, Mishra A, Chaudhury NR HIV infection with Myasthenia gravis *J Assoc Physicians India* 2005 Nov 53: 995-6

**Gorthi SP**, Kapoor L, Chaudhury R, Sharma N, Perez-Perez GI, Panigrahi P, Behari M –Guillian Barre syndrome: association with *Campylobacter jejuni* and *Mycoplasma* infections in India. *Natl Med J India.* 2006 May-Jun;19(3):137-9.

Vivek Bansal **S P Gorthi**, · Title: A study of Early Bedside Evaluation of Cognitive Impairment in HIV positive individuals *Medicon*2009;01/2009

**SP Gorthi** · AK Nagpal-Meningococcal vaccine: which, when and for whom? Medical Journal Armed Forces India 01/2010; 66(1):2-3. DOI:10.1016/S0377-1237(10)80081-4.

MN Swamy · S Johri · **SP Gorthi** · AK Dubey · JR Sharma · GV Ramdas · KK Yadav-Pathological laughter, multiple sclerosis, behavioural abnormality Medical Journal Armed Forces India 10/2006; 62(4):383–384. DOI:10.1016/S0377-1237(06)80117-6.

C Mittal · **SP Gorthi**, S Rohatgi-Early Cognitive impairment: Role of clock drawing test. Medical Journal Armed Forces India 01/2010; 66(1):25–28. DOI:10.1016/S0377-1237(10)80087-5.

Kameshwar Prasad · Subhash Kaul · M V Padma · **S P Gorthi** · Dheeraj Khurana · Asha Bakshi-Stroke management Annals of Indian Academy of Neurology 07/2011; 14(Suppl 1):S82-96. DOI:10.4103/0972-2327.83084

S Shankar · RS Chatterji · N Ray Chaudary · LR Sharma · **SP Gorthi**, K Shanmuganandan: Partner counselling and referral services (PCRS) for HIV in armed forces -Visiting a blind spot Medical Journal Armed Forces India 10/2006; 62(4):367-369. DOI:10.1016/S0377-1237(06)80111-5

A Kumar · P Kumar · S Misra · R Sagar · P Kathuria · D Vibha · S Vivekanandhan · A Garg · B Kaul · S Raghvan, **Gorthi SP**, · S Dabla · C S Aggarwal · Kameshwar Prasad-Biomarkers to enhance accuracy and precision of prediction of short-term and long-term outcome after spontaneous intracerebral haemorrhage: A study protocol for a prospective cohort study. BMC Neurology 08/2015;15:136.DOI:1186/s 12883-015-0384-3.2.04

Kameshwar Prasad · Alka Sharma · Ajay Garg · Sujata Mohanty · Shinjini Bhatnagar · Sharat Johri · Kunwar Karni Singh · Velu Nair · Ravi Shankar Sarkar · **Sankar Prasad Gorthi** · Kaukab Maqbool Hassan · Sudesh Prabhakar · Neelam Marwaha · Niranjana Khandelwal · Usha Kant Misra · Jayantee Kalita · Soniya Nityanand · A Kumar- Intravenous Autologous Bone Marrow Mononuclear Stem Cell Therapy for Ischemic Stroke A Multicentric, Randomized Trial (INVEST TRIAL) Stroke 11/2014; 45(12). DOI:10.1161/STROKEAHA.114.007028

Ioana Cotlarciuc · Muhammad Saleem Khan · Ankita Maheshwari · Sunaina Yadav · Fahmi Yousif Khan · H Al-Hail · Ranil de Silva · **S P Gorthi**, Salil Gupta · Shri Ram Sharma · P N Sylaja · Kameshwar Prasad · Pankaj Sharma- Bio-repository of DNA in stroke: a study protocol of three ancestral populations. 07/2012; 1(4). DOI:10.1258/cvd.2012.012019

Maria M D'Souza, **SP Gorthi**, Kunal Vadwala, Richa Trivedi, C Vijayakumar, Prabhjot Kaur and Subash Khushu. Diffusion tensor tractography in cerebral small vessel disease: correlation with cognitive function. The Neuroradiology Journal, Vol.31, 1:pp. 83-89, October13, 2017.

Vikram Asturkar, **SP Gorthi**, YS Sirohi, Pawan Dhull. Prognostication of ischemic stroke based on the stroke volume. International Journal of scientific research. Volume-7 | Issue-3 | March-2018 | ISSN No 2277 - 8179 | IF : 4.758 | IC Value : 93.98

**Sankar Prasad Gorthi**, Reshma Susan, Arvind Prabhu, Vijay Chandran. Tubercular Meningitis - Clinical profile and Validation of Thwaites Diagnostic Criteria. (P5.150). April 10, 2018; 90 (15 Supplement) APRIL 26, 2018.

**Sankar Gorthi**, Dheeraj Nauwhar, Pawan Gupta, Kaukab Hassan. A Randomized Control Trial of Granulocyte Colony Stimulating Factor (G-CSF) Intervention in Acute Ischemic Stroke to Improve Functional Outcome (P1.139). April 08, 2014; 82 (10 Supplement) APRIL 28, 2014.

Sai Sripada Rao Koneru, Vijay Chandran, **Sankar Gorthi**, Arvind Prabhu. Cerebral Venous Sinus Thrombosis Presenting with Headache and Papilledema without Focal Neurological Deficits. April 10, 2018; 90 (15 Supplement) APRIL 24, 2018.

Sai Sripada Rao Koneru, Vijay Chandran, **Sankar Gorthi**, Arvind Prabhu. An Observational Study, On Low Molecular Weight Heparin (LMWH) Versus Unfractionated Heparin (UFH) Therapy In The Treatment Of Cerebral Venous Sinuses Thrombosis (CVST) (P1.204) April 10, 2018; 90 (15 Supplement) APRIL 22, 2018.

Sai Sripada Rao, Vijay Chandran, **Sankar Prasad Gorthi**. Cerebral Venous Sinus Thrombosis Presenting with Headache and Papilledema without Focal Neurological Deficits. Journal of Vascular and Interventional Neurology. Vol. 10, No. 1, pp. 49–49. Published June, 2018.

Priyanka Samal 1, Vinay Goyal 1, Govind K Makharia<sup>2</sup>, Chandan J Das<sup>3</sup>, **Sankar Prasad Gorthi**<sup>4</sup>, Vishnu V Y<sup>1</sup>, Mamta Bhushan Singh<sup>1</sup>, M V Padma Srivastava<sup>1</sup>. Transfer Dysphagia Due to Focal Dystonia. J Mov Disord 2018;11(3):129-132 pISSN 2005-940X / eISSN 2093-4939.

Carol Melanie Alvares<sup>1</sup>, Deepa Narayana Devadiga<sup>2</sup>, Medikonda Jeevan<sup>3</sup>, Aravind Prabhu<sup>4</sup>, **Sankar Prasad Gorthi**<sup>5</sup>. Analysis of Cough in Post-stroke Individuals with Dysphagia. Journal of Clinical and Diagnostic Research, 2018. Dec, Vol-12(12): OC01-OC05. DOI: 10.7860/JCDR/2018/37417.12326.

Kameshwar Prasad chair, stroke neurologist 1, Reed Siemieniuk general internist, methodologist 2 3, Qiukui Hao geriatrician 2 4, Gordon Guyatt general internist, methodologist 2 5, Martin O'Donnell stroke neurologist 6, Lyubov Lytvyn patient partnership liaison 2, Anja Fog Heen general internist 7, Thomas Agoritsas general internist, methodologist 2 8, Per Olav Vandvik general internist, methodologist 7 9, **Sankar Prasad Gorthi stroke neurologist 10**, Loraine Fisch stroke neurologis 11, Mirza Jusufovic stroke neurologist 12, Jennifer Muller patient partner 13 14, Brenda Booth patient partner 13, Eleanor Horton patient partner 15, Auxiliadora Fraiz physiotherapist, nurse, Jillian Siemieniuk nurse 16, Awah Cletus Fobuzi patient and carer partner 17, Neelima Katragunta vascular surgeon 18, Bram Rochweg methods co-chair, critical care clinician 2 5. “Dual antiplatelet therapy with aspirin and clopidogrel for acute high risk transient ischaemic attack and minor ischaemic

stroke: a clinical practice guideline". BMJ 2018;363:k5130 doi: 10.1136/bmj.k5130 (Published 18 December 2018).

Nair R1, Radhakrishnan K2, Chatterjee A3, **Gorthi SP3**, Prabhu VA3. Sleep Apnea-Predictor of Functional Outcome in Acute Ischemic Stroke. J Stroke Cerebrovasc Dis. 2018 Dec 14. pii: S1052-3057(18)30681-5. doi: 10.1016/j.jstrokecerebrovasdis.2018.11.030.

Goutham Kumar Puppala, Arvind N Prabhu, **Shankar Prasad Gorthi**, Vijay Chandran, Department of Neurology, Kasturba Hospital, Kasturba Medical College, Mahe, Manipal, Karnataka, India. Acute Influenza A Virus-Associated Encephalitis with Bilateral Lateral Geniculate Body Hemorrhagic Infarction-Complicating Pregnancy. Annals of Indian Academy of Neurology | Volume 22 | Issue 3 | July-September 2019 | DOI: 10.4103/aian.AIAN\_319\_18.

Vasanthan Rajagopalan,<sup>1</sup> Manikandan Natarajan,<sup>1</sup> **Sankar Prasad Gorthi**,<sup>2</sup> Sebastian Padickaparambil,<sup>3</sup> John M Solomon,<sup>4</sup>. Effectiveness of a multifactorial context enhancing functional therapy to promote functional arm use and recovery of stroke survivors: study protocol for a clinical trial. BMJ Open 2019;0:e023963. doi:10.1136/bmjopen-2018-023963 BMJ Open: first published as 10.1136/bmjopen-2018-023963 on 17 September 2019.

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(b) **Chapters in textbooks and CME proceedings**

**Gorthi SP**, Anand KP: Effects of Heat in Symposium on Tropical Medicine, Proceedings of Medicine Update APICON 1999

Venkatraman S, **Gorthi SP**: Current Concepts in Neuro-Oncology Reviews in Neurology India; Neurology Society of India July 1999

Venkatraman S, **Gorthi SP**: CNS infections; Proceedings of Medicine Update APICON 2002

Venkatraman S, **Gorthi SP**: Acute Flaccid Paralysis, Post Graduate Medicine; Proceedings of CME APICON 2002

Venkatraman S, **Gorthi SP**: Tubercular Meningitis, Post Graduate Medicine; Proceedings of Scientific Sessions APICON 2003.

**Gorthi SP**, Kumar V, Singh KK et al: Coagulopathies in Ischemic Stroke- Recent Advances in Stroke Management . Proceedings of Scientific Sessions Annual Conference of Indian Academy of Neurology IANCON Sep 2003, Vizag

**Gorthi SP**, Venkatraman S: Current concepts in management of Refractory Epilepsy NeuroSciences Today Aug 2003

**Gorthi SP**, Singh KK et al : Homocysteine and Stroke Neurosciences Today Nov 2003

**Gorthi SP** Management Of Dementia; In Medicine update 2004. Proceedings of scientific sessions; APICON 2004, Jan: APICON Hyderabad, 2004: 609-618.

**Gorthi SP** An Approach to a case of Dementia In Medicine update 2004. Proceedings of scientific sessions; APICON 2004, Jan: APICON Hyderabad, 2004: 609-618.

**Gorthi SP** An Introduction to Evidence Based Medicine; In Medicine update 2004. Proceedings of scientific sessions; APICON 2004, Jan: APICON Hyderabad, 2004;

Mukherjee JD, KK Singh **Gorthi SP et al.** Evidence Based Review of Low Molecular Weight Heparins. In Medicine update 2004. Proceedings of scientific sessions; APICON 2004, Jan: APICON Hyderabad, 2004: 609-618.

**Gorthi SP, Sinha PK, Praful Sharma:** Acute Onset quadriparesis with Dizziness. A Clinico-pathological case discussion In Saturday Clinics of AFMC First Edn 2007 Ed: Narula AS et all

**Gorthi SP.** Evidence based review of CIDP. Progress in Neuroscines 2010 edited by Dr A Pauranik.

A case of fatiguable generalized weakness **SP Gorthi** and A Sareen. Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages7-10 (ISBN NO978-81-9230303-1-7)

A case of fever of Unknown origin **SP Gorthi** Rima Rumpaul and S Rohatagi . Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages17-24 (ISBN NO978-81-9230303-1-7)

A case of Hemiparesis **SP Gorthi** and P Agrawal. Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages 25-28 (ISBN NO978-81-9230303-1-7)

A case of stroke in young **SP Gorthi** Rima rumpaul, CS Narayanan . Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages36-43 (ISBN NO978-81-9230303-1-7)

A case of Head ache, with neck pain, fever and altered sensorium **SP Gorthi, A Mukherjee** and A Sareen . Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages 52-59 (ISBN NO978-81-9230303-1-7)

Acute onset quadriparesis with purpura **SP Gorthi, YS Sirohi, D Mitra** and A Mukherjee. Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages 60-69 (ISBN NO978-81-9230303-1-7)

A case of progressive paraparesis with lowback ache, dry cough and weightloss **SP Gorthi A Mukherjee** and A Sareen. Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages70-76 (ISBN NO978-81-9230303-1-7)

A case of acute onset quadriparesis **SP Gorthi** D Mitra and S Johri . Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages77-81 (ISBN NO978-81-9230303-1-7)

A case of fatiguable generalized weakness **SP Gorthi** and A Sareen. Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages7-10 (ISBN NO978-81-9230303-1-7)

Approach to a case of acute stroke **SP Gorthi** P Agrawal and A Sareen. Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi page 82-84 (ISBN NO978-81-9230303-1-7)

A case of sudden onset focal neurological deficit in a young lady **SP Gorthi** D Mitra, S Johri and A Mukherjee. Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages 91-99 (ISBN NO978-81-9230303-1-7)

Recurrent focal neurological deficits **SP Gorthi** A Gupta, YS Sirohi and S Rohatagi. Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages 108-118 (ISBN NO978-81-9230303-1-7)

A case of generalized weakness in a young girl recovering from prolonged ventilator support **SP Gorthi** YS Sirohi, D Mitra and Srinath R. Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages 119-127 (ISBN NO978-81-9230303-1-7)

A case of severe headache in a middle aged hypertensive lady **SP Gorthi**, YS Sirohi, Srinath R and S Rohatagi. Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages 128-134 (ISBN NO978-81-9230303-1-7)

Approach to a case of Ataxia **SP Gorthi** S Johri and A Sareen. Neurology clinics Army Hospital ed CS Narayanan, SP Gorthi and YS Sirohi pages 140-144 (ISBN NO978-81-9230303-1-7)

**SP Gorthi** and S Venkataraman - Disorders of Cranial Nerves Section 20 chapter 7. 9<sup>th</sup> ED API Text book of Medicine 1901-1911. (ISBN No 978-93-5152-415-1)

**SP Gorthi** – Disorders of Cranial Nerves, Spinal Cord and Peripheral Nerves A Text book of Geriatrics Ed P Sanchette page 496-505;2014(ISBN No 978-81-8191-418-7)

**S P Gorthi**, Vijay Chandran, Aparajita Chatterjee, Chapter-“DBS: Its Role in the Management of Parkinson’s Disease”, Book - “Parkinson’s Disease in India - From Clinic to Bench”, Published by Manipal Universal Press, February 2019 (ISBN: 978-93-82460-93-0, Page No: 193-206).

**S P Gorthi**, Vijay Chandran, Arvind Prabhu, Chapter - “Education and Empowerment of Patient’s with Parkinson’s Disease”, Book - “Parkinson’s Disease in India - From Clinic to Bench”, Published by Manipal Universal Press, February 2019 (ISBN: 978-93-82460-93-0, Page No: 252-255).

**SP Gorthi**, Aparajita Chatterjee, Chapter – “Disorders of Cranial Nerves”, Book- “API Textbook of Medicine”, February 2019 (ISBN: 9788193976401).

(c) **Abstracts in conference proceedings / supplements**

Venkatraman **SP Gorthi SP** et al: Syndrome of Raised Intracranial Tension without Localising Neurological Signs- 50 cases Proceedings of Scientific Sessions; Abstracts of Annual Conference of Association of Physicians of India 1990 API Jaipur.

**Gorthi SP**, Venkatraman S et al: Ten Cases of Benign Intracranial Hypertension. JAPI Dec 1992 (Abstracts of annual Conference of Association of Physicians of India).

**Gorthi SP**, Venkatraman S: Five cases of Acute Guillian barre Syndrome JAPI Dec 1993( Abstracts of Annual Conference of Association Of Physicians of India)

**Gorthi SP**, Seshadri S et al: Nine cases of Diffuse Lewy Body Disease. Proceedings of Scientific Sessions Abstracts 14 th International Conference of Alzheimer’s and related Disorders Cochin Oct 1998

**Gorthi SP**, Jain S et al. Tiagabine and refractory Epilepsy; Abstracts of Annual conference of Indian Epilepsy Association Dec 1999 Hyderabad.

**Gorthi SP**, Behari M et al : Campylobacter Jejuni and Acute Inflammatory Demyelinating Polyradiculopathy Award paper presentation; Abstracts Of Annual Conference of Neurology Society of India. Chennai Dec2000

**Gorthi SP**, KK Singh et al: Neurological Manifestations of Acquired Immuno Deficiency Syndrome, Award paper presentation Abstracts of Annual Conference of Indian Academy of Neurology Sep 2001 Delhi (Awarded best research paper award for 2001)

**Gorthi SP**, Singh KK et al: Profile Of Neuro AIDS Award paper presented at Annual Conference of Neurology Society Of India Abstracts of NEUROCON Cochin Dec 2002

**Gorthi SP**, Kumar V et al: Coagulopathies in Ischemic Stroke Annual Conference of Indian Academy of Neurology; Absrtacts of Annual Conference of Indian Academy of Neurology Oct 2004

**Gorthi SP**, Sankar S et al: Bed side evaluation of two simple tests for diagnosing HIV Dementia, Abstracts of Annual Conference of Neurology Association of India Dec 2004 Indore.



**Gorthi SP**, Kapoor L, Chaudhury R, Sharma N, Perez-Perez GI, Panigrahi P, Behari M Guillian- Barre syndrome: association with Campylobacter jejuni and Mycoplasma infections in India. (Abstracts of the XVIII th World Congress of Neurology 5-11 Nov 2005, Sydney Australia) J Neurological Sciences 2005 Nov 238 Suppl 1 S187

**Gorthi SP**, Satyanarayana S, Batra A, Singh KK Bhattacharya S, Tripathi RP, Johri S Profile of Neurological manifestations of Acquired Immunodeficiency Sytndrome (Neuro-AIDS) in Indian subcontinent . (Abstracts of the XVIII th World Congress of Neurology 5-11 Nov 2005, Sydney Australia) J Neurological Sciences 2005 Nov 238 Suppl 1 S307-8

**Gorthi SP**, Johri S, Kumar V, Singh KK, Chopra GS, Mukherjee JD, Kotwal J Relevance of coagulopathies in Ischemic Stroke (Abstracts of the XVIII th World Congress of Neurology 5-11 Nov 2005, Sydney Australia) J Neurological Sciences 2005 Nov 238 Suppl 1 S398

**Gorthi SP**, Shankar S, Gupta A, Johri S, Tripathi S Bedside evaluation of early neurological abnormalities in patients with HIV infection (Abstracts of the XVIII th World Congress of Neurology 5-11 Nov 2005, Sydney Australia) J Neurological Sciences 2005 Nov 238 Suppl 1 S308

**Gorthi SP** S Srivatsava, KK Singh VSM, & Sarvanan A Clinico-Electrophysiological correlation in Neuro-AIDS Annual conference of Indian Academy of Neurology Mumbai Oct 2007

**Gorthi SP**, Gupta PK, Sahoo PK, Sinha PK, Kumar H, & Singh HP Autologous bone marrow mononuclear cell therapy for patients with Amyotrophic Lateral Sclerosis Spinal Cord trauma and Muscular dystrophy (A pilot study) 56<sup>th</sup> Annual Conference of NSI Dec 2007 Agra

**Gorthi SP**, Mehata A, Bewal N & Sinha PK. A Sural Nerve biopsy based study of Peripheral Neuropathy 56<sup>th</sup> Annual Conference of NSI Dec 2007 Agra

**Sankar Gorthi**, Pawan Gupta, Satishkumar, Premkumar Sinha, Harinder Pal Singh. Autologous Bone Marrow Mononuclear Cells for Patients with Motor Neuron Disease – A safety and Feasibility Study. 66<sup>th</sup> Annual Conference Of American Academy of Neurology AAN 2014 at Philadelphia US 26<sup>th</sup> April to 3 May 2014.

**Sankar Gorthi**, Dheeraj Nauwhar, Pawan Gupta, Kaukab Hassan. A randomized Control Trial of Granulocyte Colony Stimulating Factor (G-CSF) intervention in Acute Ischemic Stroke to improve functional outcome. 66<sup>th</sup> Annual Conference Of American Academy of Neurology AAN 2014 at Philadelphia US 26<sup>th</sup> April to 3 May 2014.

Johri S, **Gorthi SP** Rohtagi S, Kapoor R, Thukral G Clinical & MRI evaluation of High Altitude Cerebral edema (Abstracts of the XVIII th World Congress of Neurology 5-11 Nov 2005, Sydney Australia) J Neurological Sciences 2005 Nov 238 Suppl 1 S53

**Invited faculty:**

1. Delhi Neurological Association on 5-6<sup>th</sup> Feb 2000 at Indraprastha Apollo Hospital, New Delhi.
2. National CME-Military Psychiatry on 20-21 Oct 2001 at Base Hospital, Delhi Cantt-10. Delivered a lecture on “ Assessment of Dementia”
3. 4<sup>th</sup> Annual Conference DNA & 1<sup>st</sup> Neuro Nurses Update by GB Pant Hospital, New Delhi (Delhi Neurological Association) on 2-3<sup>rd</sup> Feb 2002.
4. 1<sup>st</sup> National Workshop ON Critical Care Neurology on 1-3 Mar 2002
5. 10<sup>th</sup> Annual Conference of Indian Academy of Neurology on 27-29<sup>th</sup> Oct 2002 by Chhatrapati Shahuji Maharaj Medical University-Lucknow
6. Armed Forces Wokshop on HIV/AIDS-2002 Organized by Base Hospital, Delhi Cantt-10 on 8-9<sup>th</sup> Nov 2002.
7. DNA Neurocon 2003 5<sup>th</sup> Annual Conference 2<sup>nd</sup> Feb 2003.
8. 11<sup>th</sup> Annual Conference of Indian Academy Of Neurology on 28-30<sup>th</sup> Sep 2003 by Department of Neurology, Andhra Medical College, King George Hospital, Visakhapatnam, AP.
9. First Neurology Symposium: Movement Disorder by Department of Neurology, AIIMS on 4<sup>th</sup> Dec 2003.
10. International EEG Course on 10-11 Dec 2003 at PGI Chandigarh
11. 52<sup>nd</sup> Annual Conference of Neurological Society of India on 12-15 Dec 2003 at PGIMER, Chandigarh.
12. Crebrovascular disease: Advances in stroke for the new millennium by Neurosciences centre –AIIMS & Neurosciences Centre-Indraprastha Apollo Hospital on 20<sup>th</sup> Dec 2003.
13. 59<sup>th</sup> Annual Conference of Association of Physicians of India(APICON2004) on 18-21 Jan 2004 at Hyderabad
14. National Symposium on stroke on Jan 30-31 2004at GB Pant Hospital, New Delhi.
15. Directorate General Armed Forces Medical Services, Ministry of Defense 52<sup>nd</sup> Armed Forces Medical Conference. Presented a paper titled “ Coagulopathies in ischemic stroke-Current Perspectives” on 6<sup>th</sup> Feb 2004
16. Max CME Series, CME program on “Real Life Use of Botulinum Toxin” on 8<sup>th</sup> Feb 2004 at India Habitat Centre, New Delhi.
17. 6<sup>th</sup> Annual Conference of Delhi Neurological Association on 22<sup>nd</sup> Feb 2004 at Army Hospital (Research & Referral), Delhi Cantt.

18. Intensive National CME Program on Epilepsy by Department of Neurology, GB Pant Hospital, New Delhi on 29<sup>th</sup> Feb 2004.
19. Certificate of Attendance the Diamond APICON 2005 on 22<sup>nd</sup> -25<sup>th</sup> Jan 2005 at Renaissance Hotel & Convention Centre, Powai, Mumbai
20. Third National Workshop-Critical Care Neurology on 18-20<sup>th</sup> Mar 2005 at Hyderabad.
21. CME on Current issues in alcohol dependence syndrome by Department of Psychiatry Command Hospital(Southern Command) Pune . Delivered a lecture on “Alcohol and Medicine” on 10<sup>th</sup> Apr 2005
22. CME on Emergency Medicine held at MH Secunderabad on 6-7<sup>th</sup> Aug 2005
23. CME on “National Environmental Medicine Conference -2005”on 10-11 Sep 2005 at Armed Forces Medical College, Pune.
24. CME Medicine-2005 on “AIDS: An Update” on 22 Oct 2005 in Command Hospital (WC), Chandimandir.
25. 1<sup>st</sup> National Conference on Evidence –Based Neurosciences Pre Conference Workshop on Stroke Research Methodology Post-Conference Workshop on Critical Appraisal Research in Neurosciences held at All India Institute of Medical Sciences, New Delhi on 14-15<sup>th</sup> Nov 2005
26. Indo-US Symposium on Cerebrovascular Disorders under aegis of Indo-US Sciency & Technology Forum on 12<sup>th</sup>-14<sup>th</sup> Dec 2005at India Habitat Centre, New Delhi.
27. Armed Forces Medical College, Pune Department of Psychiatry-CME Mil Psychiatry on Recent Advances in Psychiatry” on 24-25<sup>th</sup> Jun 2006. Delivered a lecture on Neurological perspective in the aged”
28. CME on “Stem Cells” by Department of Transfusion Medicine in AFMC-Pune on 23-24 Dec 2006
29. HIV/AIDS Treatment & Care Workshop on 26-29 Apr 2007 in Command Hospital (Southern Command) Pune. Delivered a lecture on “Approach to HIV Disease with Neurology Symptoms”.
30. Medicine Update-2008 “Controversies in medicine” on 20-24 Sep 2008 at INHS
31. Asvini, Mumbai delivered a lecture on Should a solitary seizure be treated?
32. 12<sup>th</sup> Asian Oceanian Congress of Neurology& 1th Annual Conference of the Indian Academy of Neurology(AOCN-IANCON 2008) ON 23-26 Oct 2008 at New Delhi
33. 4<sup>th</sup> National Congress of Indian Stroke Association on 14<sup>th</sup>-15<sup>th</sup> Mar 2009 in Hyderabad
34. HIV/AIDS Palliative Care Workshop on 23-25 Apr 2009 at Command Hospital (Southern Command) Pune.

35. Centre for stem cell research Christian Medical College, Vellore. Workshop on Good Clinical Practice(GCP) in stem Cell Research on 3<sup>rd</sup> Jul-1<sup>st</sup> Aug 2009 by Department of Biotechnology
36. World Stroke Day Symposium on 28<sup>th</sup> Oct 2011 at India Habitate Centre, New Delhi
37. Mar 2014 Faculty in Indian Stroke School conducted by Indian Stroke association – Lonawale- Pune.
38. Annual conference of American Academy of Neurology –Philadelphia-USA 30 April 2014
  - A Randomised controlled trial of GCF in acute ischemic stroke
  - Autologus hematopoetic stem cell transplantation in Motor Neuron Disease.
39. 6-9<sup>TH</sup> Nov 2014 IANCON- PGI Chandigarh as a Chairperson, My platform presentation was done on 08 Nov 2014 on the role of biopsy in diagnosing neurological disorders.
40. Finding evidence in medical Guest lecture/Guest faculty international workshop on evidence Based Medicine in AIIMS 13 Nov 2014
41. Headache- Medanta Hospital Nov 2014
42. CME on MS- PGIMER Nov 2014
43. Oral Therapic in MS, Jaipur on 24 Jan 2015
44. DNACON-BP in ICH,RML- Delhi on 31 Jan 2015
45. Anticoagulant in Stroke, PGI Chandigarh on 14 Mar 2015
46. Indo-UK 4i Study, AIIMS, Delhi 28 Mar 2015
47. DMD in MS Indian experience, India habitate centre-Delhi on 11-12 Apr 2015
48. DNB Examinership- TN Multi speciality Hospital-Chennai on 04-06 May 2015
49. INK, Kolkata on 29-30 May 2015
50. Movement Disorders, Goa on 27-28 Jun 2015
51. Stroke Symposium, India Habitate centre, Delhi on 16 Jul 2015
52. Movement Disorder Spasticity, Mumbai on 25-26 Jul 2015
53. Impacting epilepsy, Eros Hotel, New Delhi on 02 Aug 2015
54. Stroke Summer School,Munnar-Kerala 14-16 Aug 2015
55. IANCON 2015,Agra on 01-04 Oct 2015
56. 5<sup>th</sup> Asian Australasian Society of Neurological Surgeons Neurotrauma Committee & 2<sup>nd</sup> WFNS-Military Neurosurgeons Meeting-Jaipur on 09 Oct 2015

57. Brain and Heart, Leela palace –Chennai on 10-11 Oct 2015.
58. Demyelinating disorders - ICTRIMS 2016 from 04-05 June 2016 at Mangalore & delivered a Guest Lecture on “How I start first line therapy for MS - Personal Experience”.
59. 22nd Annual Conference Society of Nuclear Medicine India Southern Chapter from 13-14 Aug 2016 organized by MU Faculty KMC & School of Allied Health Science, Manipal.
60. The 10th World Stroke International Conference from 26-29 Oct 2016 at Hyderabad and delivered a Guest Lecture - “Basic MRI in stroke”.
61. The 24th Annual Conference of Indian Academy of Neurology from 10-13 Nov 2016 at Kolkata as a Faculty for Clinico Pathological Correlation session.
62. Conference Clinical Research - How to begin and conduct? Organized by Clinical Epidemiology Unit & Department of Nephrology at KMC, Manipal on 14.01.2017.
63. Manipal Clinical CME – 2017 organized by Department of Medicine on 15.01.2017 at KMC, Manipal, as a Faculty for case discussion.
64. The Neuroimmunology CME of the Bangalore Neurological Society (BNS) on 22.01.2017 at Bangalore and delivered a Guest Lecture - “Stroke in the young”.
65. Delivered a Guest Lecture on “Application of Botulinum in ENT” on 21.02.2017 for ENT Post Graduates at KMC, Manipal.
66. International Workshop on Nerve Muscle Disorder 2017 from 17-19 Feb 2017 at Delhi.
67. The 11th Indian National Stroke Conference of the Indian Stroke Association at Amritsar from 17-19 Mar 2017 and delivered a Guest Lecture on “PFO Closure – for whom with the current evidence”.
68. Delivered a Guest Lecture on “CSF flow dynamics” at CME on Stroke conducted on 25.03.2017 at KMC, Manipal.
69. The Annual Conference of American Academy of Neurology at Boston USA, from 22- 28 April 2017.
70. The “India MS Summit 2017” (International) at Ahmedabad from 1-2 July 2017 and delivered a Guest Lecture - "Monoclonal Antibodies in Multiple Sclerosis".
71. Stroke Summer School at Chennai from 18-20 August 2017 and delivered a Guest Lecture on "Prevention of medical complications in stroke unit".
72. The Indo-US Science and Technology Forum (IUSSTF) sponsored workshop from 1-3 December 2017 at New Delhi and delivered a Guest Lecture on “Role of Private institutes for stroke care in India”.
73. CME on comprehensive update on diabetes mellitus organized by IMA Karwar, IAP Uttara Kannada chapter, MEU-Dept. of paediatrics KaIMS, Karwar & KMC Manipal on 07.01.2018 at Karwar and delivered a Guest Lecture on “Stroke & Diabetes”.

74. The 10th World Congress for Neuro Rehabilitation from 7-10 February 2018 at Mumbai and presented poster on “Endogenous mobilization of hematopoietic stem cells - a sub-acute stroke intervention to improve functional outcome”.
75. The “70th Annual Meeting of the American Academy of Neurology” from 21.04.2018 to 27.04.2018 at Los Angeles, CA & presented two posters titled:
  - "Tubercular Meningitis – Clinical Profile and Validation of Thwaites Diagnostic Criteria".
  - "A randomized Controlled trail of Granulocyte colony stimulating factor (GCSF) intervention in acute Ischemic stroke (AIS)".
76. The 5th ‘Stroke summer school’ organized by Indian Stroke Association on the 1<sup>st</sup> and 2<sup>nd</sup> of September 2018 at the Holiday Inn Resort, Goa & delivered a talk on "Angiographic studies for Ischemic and Hemorrhagic Stroke”.
77. The inauguration cum investigators meeting of Indian Stroke Research Network project entitled “Fever, hyperglycemia, swallowing and hypertension management in acute stroke: A cluster randomized controlled trial - InQuEST” coordinated by AIIMS, New Delhi and sponsored by ICMR on 7th & 8th September 2018.
78. Judge for evaluating Oral Case Presentation-Finals at the 4th Indo-German Convention of Lindau Alumni, held at Kasturba Medical College, Manipal from 20<sup>th</sup> to 23<sup>rd</sup> September 2018.
79. 26th Annual Conference of the Indian Academy of Neurology” from 27.09.2018 to 30.09.2018 at Raipur & delivered a talk on "Autonomic Nerve System Evaluation in Multiple System Atrophy”.
80. Chief Guest in National Seminar “AUDICON-V” organized by Department of Speech & Hearing, SOAHS, MAHE, Manipal on 11<sup>th</sup> October 2018.
81. Armed Forces Neurology & Neurosurgery Update 2018 on 3rd & 4th November 2018 at Delhi, organized by Dept. of Neurology & Neurosurgery, Army Hospital (R&R), Delhi Cantt and delivered a talk on “Management of Dystonia”
82. Chaired a plenary session by Dr. C. R. Mukundan on 1st December 2018 at APPICON 2018 organized by Departments of Physiology & Pharmacology, Melaka Manipal Medical College & Kasturba Medical College, MAHE, Manipal.
83. Resource Person in Manipal Clinical CME-2019 (National) on 26<sup>th</sup> January 2019 at Manipal. Organized by Department of Medicine, Kasturba Medical College, MAHE, Manipal and delivered a talk on “ Approach to Movement Disorders”.
84. Chairperson in FINE-MAHE Weekend Course on Palliative Care in Neurology, conducted on 2<sup>nd</sup> & 3<sup>rd</sup> February 2019 at Manipal.
85. The XIII Indian National Stroke Conference – INSC 2019, from 15<sup>th</sup> to 17<sup>th</sup> March 2019 at Ahmedabad and delivered a talk on “CNS Vasculitis”.
86. The “71<sup>st</sup> Annual Meeting of the American Academy of Neurology” from 04.05.2019 to 10.04.2019 at the Pennsylvania Convention Center, Philadelphia, Pennsylvania & presented two posters titled:

- "Clinical Profile and functional outcomes of idiopathic inflammatory demyelinating disorders of CNS in adults."
  - "A cross sectional analytical study of cognitive impairment in survivors of spontaneous intracranial hemorrhage (ICH)."
87. "IMPROVISE Collaborators' Meeting" on 20<sup>th</sup> June 2019 at the University of Central Lancashire, Dubai.
88. Chairperson in 3<sup>rd</sup> Manipal International Infectious Diseases Conference held on 10<sup>th</sup> & 11<sup>th</sup> August 2019 in Manipal.
89. Attended the NIH StrokeNet ICMR INSTRuCT workshop at ICMR Hqrs, New Delhi from 18<sup>th</sup>-21<sup>st</sup> September 2019.
90. Faculty in the Hypertension Conclave / API Karnataka at Bangalore on 27<sup>th</sup> September 2019 and delivered a talk on "Hypertension Management in Acute Stroke".
91. Faculty in the 27<sup>th</sup> Annual Conference of Indian Academy of Neurology - IANCON 2019 from 03.10.2019 to 06.10.2019 at Hyderabad and delivered a talk on "Vasculitis in Stroke".
92. the XXIV World Congress of Neurology from 27.10.2019 to 31.10.2019 at Dubai, United Arab Emirates and presented 1 Poster & 1 Paper:
- Poster Titled: "Clinical Profile and Geographical Distribution of Cerebral Venous Sinus Thrombosis at a tertiary care hospital".
  - Paper Titled: "Treatment patterns and outcome in cerebral venous sinus thrombosis (CSVT)".
93. Faculty in the Psychiatry Update – 2019 in KMC, Manipal on 9<sup>th</sup> & 10<sup>th</sup> November 2019 and delivered a talk on "Clinical approach and management of Parkinson's and Movement Disorders".

Chief Coordinator and Faculty at AHRR (2001-2015) for the following academic activities.

A) Clinical Research Unit programmes (Every month third Tuesday)

- Critical appraisal of the paper "Dabigatran Vs Warfarin in patients with Atrial Fibrillation" Vol 361 No 12 Sept 17, 2009 NEJM will be discussed: 02 Mar 2012 Friday at 1500h in Seminar Hall III
- Clinical Research Unit(CRU)-Gp Capt Shankar, Dr Kameshwar Prasad on 07-08 Jul 2012
- Formulating a clinical question (1500-1530h) Seminar Hall-III,AHRR on 21 May 2013
- Finding the current best evidence (1530-1600h) Seminar Hall-III,AHRR on 21 May 2013
- Group work on formulating a clinical question, Group work presentations, QA and discussions (1600-1700h) Seminar Hall-III, AHRR on 21 May 2013
- Introduction to critical appraisal of a therapy paper (1500-1600h), Seminar Hall-III, AHRR on 16 Jul 2013
- Group work on therapy paper, Group work presentations (1600-1700h), QA and discussion, Seminar Hall-III, AHRR on 16 Jul 2013

- Critical appraisal of a diagnosis paper (1500-1600h) Seminar Hall-III, AHRR on 20 Aug 2013
- Critical appraisal of Meta analysis paper Seminar (1500-1600h) Hall-III, AHRR on 17 Sep 2013
- Group work on Meta analysis paper, Group work presentations, QA and discussion (1600-1700h)
- Topic-‘P’ value & confidence interval-Prof Kameshwar Prasad-AIIMS on 19 Nov 2013
- Odd’s Ratio (1600-1700h) Seminar Hall-III, AHRR on 17 Jun 2014
- Group work (1700-1800h) Seminar Hall-III, AHRR on 17 Jun 2014
- Critical appraisal of a diagnosis paper Seminar Hall-III, AHRR on 16 Dec 2014
- Group work (1700-1800h) Seminar Hall-III, AHRR on 16 Dec 2014
- Meta analysis and GRADE classification, Seminar Hall-III, AHRR on 17 Jun 2014
- Group work (1700-1800h) Seminar Hall-III, AHRR on 17 Jun 2014
- Absolute and Relative risk reduction (1600-1700h) Seminar Hall-III, AHRR on 18 Mar 2015
- Group work (1700-1800h) Seminar Hall-III, AHRR on 18 Mar 2015
- Critical Appraisal of a therapy article on “APIXABAN”(1600-1700h) Seminar Hall-III, AHRR on 30 Apr 2015
- Group work (1700-1800h) Seminar Hall-III, AHRR on 30 Apr 2015
- **“Apixaban versus warfarin in patients with AF”**- NEJM 2011 will be discussed. Read introduction and identify PICO (interactive) (15.40-15.50h) Seminar Hall-III, AHRR on 21 May 2015
- Design intro (population & sample, bias, confounding, essential elements of RCT) (15.50-16.00h) Seminar Hall-III, AHRR on 21 May 2015
- Interactive –Design, population, randomization, concealment, primary outcome (16.00-16.15h) Seminar Hall-III, AHRR on 21 May 2015
- Types of data & variety of test description of data, p, power, confidence interval, RR & derivatives, NNT. (16.15-16.30h) Seminar Hall-III, AHRR on 21 May 2015
- Discuss & calculate (D1 vs D2 vs W; non-inferiority & superiority) (16.40-16.50h) Seminar Hall-III, AHRR on 21 May 2015
- Apixaban critical appraisal (Critical Appraisal of Aristotletrial ),SHL-III,AHRR on 27 Aug 2015
- Research question and hypothesis testing:A recap(1530-1545h) by Brig SP Gorthi, SHL-III, AHRR on 23 Oct 2015
- Types of errors(1545-1610h) by Lt Col Prafull Mohan , SHL-III, AHRR on 23 Oct 2015
- Bias and confounders practical examples(1610-1630h) by Lt Col Prafull Mohan SHL-III, AHRR on 23 Oct 2015
- Impact of bias on research results how to control errors(1630-1650h) by Brig SP Gorthi, SHL-III, AHRR on 23 Oct 2015
- Feed back and interactive session(1650-1700h) by Brig SP Gorthi, SHL-III, AHRR on 23 Oct 2015



B) Continuum in Neurology programme (Every month last Monday)

- Neurologic Complication (1530-2000h) -Speakers-08, Seminar Hall-III, AHRR on 28 Jan 2013
- Neurology Neurorehabilitation (1530-2000h) -Speakers-08, Seminar Hall-III, AHRR on 25 Feb 2013
- Neurogenetics (1530-2000h) Speakers-08, Seminar Hall-III, AHRR on 29 Apr 2013
- Secondary Stroke prevention (1530-2000h) -Speakers-08, Seminar Hall-III, AHRR on 27 May 2013
- Peripheral Neuropathy (1530-2000h) Speakers-08, Seminar Hall-III,AHRR on 29 Jul 2013
- Neuro Oncology (1530-2000h) -Speakers-08, Seminar Hall-III, AHRR on 26 Aug 2013
- Head Ache(1530-2000h) Speakers-08,Seminar Hall-III,AHRR on 28 Oct 2013
- Neuro Otology (1530-2000h) Speakers-08, Seminar Hall-III, AHRR on 25 Nov 2013
- Sleep disorders-1(1530-2000h) Speakers-08, SHL-III, AHRR on 24 Feb 2014
- Sleep disorders-2(1530-2000h) Speakers-08, SHL-III, AHRR on 31 Mar 2014
- Dementia (1530-2000h) Speakers-08 on 26 May 2014 SHL-III, AHRR
- Epilepsy (1530-2000h) Speakers-08 on 30 Jun 2014 SHL-III, AHRR
- Multiple Sclerosis (1530-2000h) SHL-III, AHRR on 28 Jul 2014
- Movement disorders (1530-2000h) Speakers-08, SHL-III, AHRR on 25 Aug 2014
- Muscle Disease-1 (1530-2000h) Speakers-08, SHL-III, AHRR on 29 Sep 2014
- Muscle Disease-2(1530-2000h) Speakers-08, SHL-III, AHRR on 24 Nov 2014
- CME-Neurological complications in systemic disease (1530-2000h) Speakers-08, -SHL-III, AHRR on 28 Jan 2015
- Neurology of pregnancy (1530-2000h) Speakers-08,-SHL-III,AHRR on 30 Mar 2015
- Cerebro vascular disease (1530-2000h) Speakers-08, SHL-III, AHRR on 27 Apr 2015
- Neurology of systemic disease (1530-2000h) Speakers-08, -SHL-III,AHRR on 25 May 2015
- Neuro ophthalmology (1530-2000h) Speakers-08, - SHL-III, AHRR on 27 Jul 2015
- Peripheral Neuropathy, (1530-2000h) Speakers-08, SHL-III,AHRR on 29 Jul 2015
- Peripheral Nervous System Disorder (1530-2000h) Speakers-08-1,SHL-III,AHRR on 31 Aug 2015
- Peripheral Nervous System Disorders-2(1530-2000h) Speakers-08, SHL-III, AHRR on 28 Sep 2015.
- Dementia (1600-1900h) Speakers-11, KMC-Manipal on 25 July 2016.
- Epilepsy (1600-1900h) Speakers-09, KMC-Manipal on 22 Aug 2016.
- Multiple Sclerosis and Other Demyelinating Diseases (1600-1900h) Speakers-08, KMC-Manipal on 26 Sep 2016.
- Neurocritical Care (1600-1900h) Speakers-08, KMC-Manipal on 24 Oct 2016.
- Movement Disorders (1600-1900h) Speakers-08, KMC-Manipal on 28 Nov 2016.
- Neuroimaging (1600-1900h) Speakers-07, KMC-Manipal on 19 Dec 2016.
- Neuroimaging (1600-1900h) Speakers-07, KMC-Manipal on 23 Jan 2017.
- Muscle and Neuromuscular Junction Disorders (1600-1900h) Speakers-06, KMC-Manipal on 27 Feb 2017.
- Muscle and Neuromuscular Junction Disorders (1600-1800h) Speakers-05, KMC-Manipal on 27 Mar 2017.
- Cerebrovascular Disease (1600-1800h) Speakers-06, KMC-Manipal on 24 April 2017.

- Selected topics in outpatient neurology (1600-1800h) Speakers-06, KMC-Manipal on 22 May 2017.
- Selected topics in outpatient neurology (1600-1800h) Speakers-04, KMC-Manipal on 19 June 2017.
- Sleep Neurology (1600-1700h) Speakers-03, KMC-Manipal on 28 Aug 2017.
- Sleep Neurology (1600-1700h) Speakers-04, KMC-Manipal on 25 Sep 2017.
- Peripheral Nerve and Motor Neuron Disorders (1600-1800h) Speakers-05, KMC-Manipal on 28 Oct 2017.
- Peripheral Nerve and Motor Neuron Disorders (1600-1700h) Speakers-04, KMC-Manipal on 22 Jan 2018.
- Neuro-oncology (1600-1700h) Speakers-04, KMC-Manipal on 26 Feb 2018.
- Neuro-oncology (1600-1700h) Speakers-04, KMC-Manipal on 26 March 2018.
- Spinal Cord Disorders (1600-1700h) Speakers-04, KMC-Manipal on 28 May 2018.
- Behavioral Neurology and Psychiatry (1600-1700h) Speakers-04, KMC-Manipal on 23 July 2018.
- Psychiatry and Behavioral Neurology (1600-1700h) Speakers-04, KMC-Manipal on 27 August 2018.
- Headache (1600-1700h) Speakers-04, KMC-Manipal on 24 Sep 2018.
- Headache (1600-1700h) Speakers-04, KMC-Manipal on 22 Oct 2018.
- Neuroinfectious Disease (1600-1700h) Speakers-04, KMC-Manipal on 26 Nov 2018.
- Neuroinfectious Disease (1600-1700h) Speakers-04, KMC-Manipal on 24 Dec 2018.
- Neurocritical Care (1600-1700h) Speakers-04, KMC-Manipal on 28 Jan 2019.
- Neurocritical Care (1600-1700h) Speakers-04, KMC-Manipal on 25 Feb 2019.
- Dementia (1600-1700h) Speakers-04, KMC-Manipal on 25 March 2019.
- Dementia (1600-1700h) Speakers-04, KMC-Manipal on 22 April 2019.
- Epilepsy (1600-1700h) Speakers-04, KMC-Manipal on 27 May 2019.
- Epilepsy (1600-1700h) Speakers-04, KMC-Manipal on 24 June 2019.
- Multiple Sclerosis and other CNS Inflammatory Diseases (1600-1700h) Speakers-04, KMC-Manipal on 26 August 2019
- Movement Disorders (1600-1700h) Speakers-04, KMC-Manipal on 28 October 2019
- Neuro-ophthalmology (1600-1700h) Speakers-04, KMC-Manipal on 25 November 2019
- Muscle and Neuromuscular Junction Disorders (1600-1700h) Speakers-04, KMC-Manipal on 23 December 2019

(C) Other academic activities Coordinated by Brig SP Gorthi

- Carotid Artery disease-By Dr MV Padma, AIIMS- Seminar Hall-III,AHRR on 25 Feb 2012
- Botulinum toxin in pain syndrome Dr Vinay Goyal- Ayurvigyan Auditorium,AHRR on 24 Aug 2012
- Biobanking in the study of pathology of movement disorders in india- Prof SK Shankar(HBTR)NIMHANS-Bangalore- Ayurvigyan Auditorium,AHRR on 24 Aug 2012
- World Stroke Day- **Hyper acute stroke**- Seminar Hall-III,AHRR on 29 Oct 2012
- Botulinum toxin therapy- Dr Sumit Singh-Medanta, SHL-III, AHRR on 16 Nov 2012
- “Intracranial pressure monitoring”- Dr Deepak Gupta, Assoc prof Neurocritical care-AIIMS On 16 Nov 2012
- 17 -18 Nov 2012 National Neurosciences Update-12, AHRR
- Indian National Brain Bee, A Neuroscience Quiz 2012- Brig SP Gorthi on 16 Dec 2012
- Myotonia- Saturday clinical meeting -Col YS Sirohi-Seminar Hall-III on 5 Jan 2013

- Delhi Neurologist Association Seminar Hall-III, AHRR on 04 May 2013
- Indian Perspective MS-(Medical Division),AHRR on 04 Jul 2013
- MS Workshop (Medical Division), AHRR on 31 Jul 2013
- Critical Care Neurology-Seminar Hall-III,AHRR on 30 Sep 2013
- Stroke Awareness programme- By Harsha Bhogle- Ayurvigyan Auditorium,AHRR on 24 Oct 2013
- Brain Bee (Quiz competition), SHL-III, AHRR on 19 Jan 2014
- Guest lecture on “Management of Refractory Epilepsy” on 06 Mar 2014 at 1600 hrs at SHL-III by Dr Priya Agarwal Senior Research Fellow Refractory Epilepsy programme at CN Centre, AIIMS.
- World Brain Day (1530-1800h), SHL-III, AHRR on 24 Jul 2014
- Stroke Club (1800-2000h), SHL-III, AHRR on 25 Jul 2014
- Multiple workshop-EDSS Dr Shamsheer Dwivedee of Fortis Memorial Research Institute, Gurgaon (1600-1800h), SHL-III, AHRR on 31 Jul 2014
- CME on Pan Neuro-trophic Virus, SHL-III, AHRR on 07 Aug 2014
- Multiple Sclerosis CME “**Recent Update in management of MS**”dt17<sup>th</sup> Oct 2014, Dr BS Singhal, Neurologist,Bombay Hospital, Mumbai.Dr Katrak, Jaslok Hospital, Mumbai
- Stroke Club, SHL-III, AHRR on 21 Nov 2014
- Tecfidera- A new chapter in personalized MS treatment,SHL-III, AHRR on 22 Dec 2014
- Delhi Regional Brain Bee ,SHL-III,AHRR on 19 Jan 2015
- Delhi Neurologist Association Meet, SHL-III,AHRR on 04 Apr 2015,
- Regional Brain Bee,SHL-III,AHRR on 09-10 May 2015
- World Alzheimers Day, Recent Advances in management of Dementia by Brig SP Gorthi, Approach to Dementia by Col Pawan Dhull, SHL-III,AHRR on 21 Sep 2015
- “**Imaging is Stroke**” by Dr Harsh Mahajan at 1500hrs in SHL-III on 16<sup>th</sup> Oct 2015.