

**CURRICULUM VITAE**  
**DEEPAK AGRAWAL, MBBS, MS, MCh**



**ACADEMIC QUALIFICATIONS**

**Associate Professor, Neurosurgery & Gamma-Knife** (1 July 2009 -Present)

Department of Neurosurgery, Neurosciences & Gamma Knife Centre,

*All India Institute of Medical Sciences, Ansari Nagar, New Delhi, India-110029*

**Assistant Professor, Neurosurgery & Gamma-Knife** (26 September 2005-30 June 2009)

Department of Neurosurgery, Neurosciences & Gamma Knife Centre,

*All India Institute of Medical Sciences, Ansari Nagar, New Delhi, India-110029*

**Clinical fellow, Pediatric & Endoscopic Neurosurgery,** (Aug 2004-September 2005)

Department of Neurosurgery,

*British Columbia children's Hospital, 4480 Oak street, Vancouver, Canada*

**Senior Research fellow, Neurosurgery** (October 2003-July 2004)

Department of Neurosurgery, Neurosciences & Gamma Knife Centre,

*All India Institute of Medical Sciences, Ansari Nagar, New Delhi, India-110029*

**Residency in Neurosurgery leading to award of MCh degree in Neurosurgery** (July 2000- July 2003)

Department of Neurosurgery, Neurosciences & Gamma Knife Centre,  
*All India Institute of Medical Sciences, Ansari Nagar, New Delhi, India-110029*

**Senior Residency in Neurosurgery (Dec 1998- June 2000)**

Department of Neurosurgery,  
*Safdarjang Hospital, New Delhi, India*

**Residency in Surgery leading to award of MS degree in Surgery (July 1995- April 1998)**

Department of Surgery,  
*University College of Medical Sciences and Guru Tegh Bahadur Hospital, Shahadara, Delhi, India-110095*

**Internship (Jan 1994- Dec 1994)**

*University College of Medical Sciences and Guru Tegh Bahadur Hospital, Shahadara, Delhi, India-110095*

**MB;BS (June 1989- Dec 1993)**

*University College of Medical Sciences and Guru Tegh Bahadur Hospital, Shahadara, Delhi, India-110095*

## **SPECIAL SKILLS**

1. **Fellowship in pediatric and Endoscopic neurosurgery (Vancouver, Canada)**  
Have been trained under Prof Paul Steinbok for one year in pediatric neurosurgery and endoscopic neurosurgery.
2. **Training in Gamma-Knife (Cleveland Clinic, Cleveland, USA).** Have been trained in Gamma-Knife surgery and have given GK therapy to more than 750 patients.
3. **Training in Stereotactic & Image guided neurosurgery.** Have vast experience in stereotactic & image guided neurosurgery on meditronic 'stealthstation'. Have also indeginised the fiducials used in image guided neurosurgery, helping in decreasing the cost of fiducials by 99%.
4. **Microneurosurgery:** Have independently performed more than 2000 cranial surgeries of all complexities in the last 5 years.
5. **AO Spine fellowship** for training in spine surgery at Basel University Hospital, Basel, Switzerland
6. **Spinal Instrumentation:** I have expertise in CVJ, cervical, dorsal & lumbar instrumentation with more than 1000 instrumentation procedures performed independently
7. **ATLS Instructor:** Have successfully done the ATLS provider and instructor course and am a qualified ATLS instructor
8. **Faculty In-charge computerisation, Call Centre, Networking & Telemedicine, JPNATC, AIIMS:** Have successfully computerised JPNATC extremely cost-effectively using state of art technologies and established a first-of-its-kind call centre for JPNATC

## **AWARDS**

1. Awarded the '**CNS-CSNS young neurosurgeon of the year**' award by the American Congress of Neurological surgeons (CNS) at the annual CNS meeting in September 2008 at San Diego, USA.
2. **Best paper award** for co-authoring study titled ' The prognosis of unknown & unattended during hospital stay in neurosurgery department & the problems faced during nursing care' at the annual ISPN conference in Goa from 15-21 October 2011

3. **Best paper award** for co-authoring study titled ‘ Does PEEP affect Central Venous Pressure reading in Mechanically ventilated head injured patients’ at the annual ISPN conference in Goa from 15-21 October 2011
4. **Best Poster award** for co-authoring study titled ‘Decompressive Craniectomy for Pediatric minor head injuries’ at the annual conference of NTSI at Ranchi, Jharkhand in August 2011
5. Best Jury award for Online health-care provider for the project ‘Integrated online portal for AIIMS Trauma centre’ at Ehealth world Expo 2011, 1-3 August , New Delhi
6. **m-billionth 2011 award** for m-health category for project mPAIN (mobile patient admission information network) in July 2011 in New Delhi, India.
7. [Best IT implementation of the year 2011 by PCQuest for online portal for JPN Apex Trauma Centre, AIIMS](#) in May 2011 by PCQuest IT magazine
8. Awarded the **AO Spine fellowship** for training in spine surgery at Basel University Hospital, Basel, Switzerland 28 March 2011- 24 April 2011
9. Awarded the **Best Poster award** for study titled '**To assess the effect of camera surveillance in improving compliance with handwashing practices in the ICU setting**' in Nursing workshop, Trauma 2010 international conference held in AIIMS, Nov 26-8, 2010.
10. Awarded 2<sup>nd</sup> **Best Poster award** for study titled '**Effect of PEEP on CVP in ventilated patients**' at Nursing workshop & conference, Trauma 2010 international conference held in AIIMS, Nov 26-8, 2010.
11. Awarded the **Best Paper award** for co-authoring the paper titled ‘**Use of Blood Donation Board by Nurses for Increasing Blood Donation in Neurosurgery ICU**’ at Nursing workshop & conference, Trauma 2010 international conference held in AIIMS, Nov 26-8, 2010.
12. Awarded the 3<sup>rd</sup> **Best Paper award** for co-authoring the paper titled ‘**Study to assess the Cost-effectiveness of reuse of expensive disposable items in Neurosurgery ICU**’ at Nursing workshop & conference, Trauma 2010 international conference held in AIIMS, Nov 26-8, 2010.
13. Awarded the 3<sup>rd</sup> **Best Paper award** for co-authoring the paper titled ‘**Relation of Dopamine Dependent Hypotension with Outcome in Cervical Spine Injury Patients**’ at Nursing workshop & conference, Trauma 2010 international conference held in AIIMS, Nov 26-8, 2010.

14. Awarded the **Best Poster award** for study titled 'Neurosurgery ICU- poles apart from general ICU' at the 19th Annual Conference of Neuro-Trauma Society of India. Chennai. 20th to 22nd August 2010
15. Awarded the **2<sup>nd</sup> Best poster award** for study on usefulness of mobile CT in neurosurgery ICU of trauma centre' at the 19th Annual Conference of Neuro-Trauma Society of India. Chennai. 20th to 22nd August 2010
16. **eIndia 2010 Jury's choice award in mGovernance** for 'Eliminating queues in OPD- An mgovernance initiative at JPNATC' on 6 September 2010 at Hyderabad, India
17. **m-billionth 2010 award** for m-health category for mBillionth Congress & Award Gala scheduled on July 23<sup>rd</sup> 2010 in New Delhi, India.
18. Awarded the '**Synthes Spine Observiship program**' to visit Spine Centre in Hong Kong from 23 April to 2 May 2010
19. Recieved **best poster award** for study titled 'Outcome in Head Injured patients: Indian Experience' at the annual NSI conference held at Jaipur in December 2009
20. Recieved **best paper award** for co-authoring the study titled '**Changes in ICP following response checking and suctioning in neurosurgical intensive care unit**' at 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
21. Recieved **second best paper award** for co-authoring the study titled '**Does PEEP effect central venous pressure in mechanically ventilated patients?**' at 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
22. Recieved **third best paper award** for co-authoring the study titled '**To assess the effect of camera survelliance in improving compliance with handwashing practices in the ICU setting**' at 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
23. Recieved **third best paper award** for co-authoring the study titled '**Foley's catheter or external condom catheter-which is better in bed-ridden head injured male patients**' at 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
24. Recieved **best paper award** for co-authoring the study titled '**Effect of PEEP on CVP in ventilated patients**' at DNACON, AIIMS, New Delhi 7-8 February, 2009

25. Awarded the **AANS travelling fellowship** to attend the annual CNS meeting in New Orleans 23-29 October 2009 and present the study titled '**Computerisation in developing countries**'
26. Awarded the **AK Banerjee award for best paper in Neurotrauma** for the study titled 'CSF lactate with CSF sugar compared with conventional CSF analysis in suspected postoperative meningitis: A prospective controlled study' at Trauma 2008, New Delhi, India 29-30 Nov 2008
27. Awarded the **AK Banerjee award for best paper in Neurotrauma** for the study titled 'Papilloedema as a non-invasive marker for raised intra-cranial pressure post decompressive craniectomy in patients with severe head injury' at Trauma 2008, New Delhi, India 29-30 Nov 2008.
28. Awarded the '**VS Mehta award for best research in cranio-spinal trauma**' for the study titled 'Leukocytosis after routine cranial surgery: A potential marker for brain damage in intracranial surgery' at Trauma 2008, New Delhi, India 29-30 Nov 2008
29. Received the 'best paper' award for co-authoring paper titled '**Novel biochemical markers for diagnosing postoperative meningitis**' at the annual conference of Indian society of pediatric neurosurgery, held at Chandigarh, India from Nov 3-5, 2007
30. Received 2nd best research paper award for the paper titled '**Image guided in pituitary adenomas-luxury or necessity?**' at the annual conference of the skull base society of India, held at New Delhi from Oct 14-17, 2007.
31. Received 'best paper' award for co-authoring paper titled '**Safety and feasibility of convention enhanced intratumoral immunotherapy in recurrent high grade gliomas: initial experience in 17 cases**' at the 4th South Asian Neurosurgical Congress (SANC) held at New Delhi, India from 15-18 February, 2007.
32. Received the '**Herbert Krause Gold medal in Neuro-oncology**' for co-authoring the paper titled '*Role of Gamma-Knife in Glomus Jugulare tumors*' at the annual conference of NSI held at Madurai, India from 20-24 December 2006.
33. Awarded the prestigious ISPN scholarship for presenting research titled 'Complex split-cord malformations-the untold story' at the **annual ISPN meeting in September 2006 at Taipei, Taiwan**
34. Awarded '**Gold Medal**' for best paper titled '*Have cranio-vertebral junction anomalies been overlooked as a cause of vertebro-basilar insufficiency*' presented at the **annual ISCIS conference held in March 2006 at New Delhi, India**

35. Best paper award in the poster category for the paper titled *Postconcussion syndrome in the pediatric population- is medial temporal damage responsible? A prospective controlled study* at the **Annual Meeting of the Neurotrauma Society of India, Sept 2004, Ludhiana, India**
36. Second best paper award in the poster category for the paper titled '*Endovascular balloon occlusion in traumatic carotico-cavernous fistula: a 17 year experience*' at the **Annual Meeting of the Neurotrauma Society of India, Sept 2004, Ludhiana, India.**
37. Awarded the 'Indian National Science Academy' and the 'Department of Science and Technology' traveling fellowship to attend the **5<sup>th</sup> World Stroke Congress, June 23-26, 2004, Vancouver, Canada**, and present the paper titled '*Vertebrobasilar ischaemia in CVJ anomalies*'.
38. Awarded the CSIR international traveling fellowship to attend the **annual conference of the International Society of Pediatric Neurosurgery, Sept 14<sup>th</sup>-18<sup>th</sup> 2003, Monaco, Europe**, and present the paper titled '*Postconcussion Syndrome In The Pediatric Population- Is Medial Temporal Damage Responsible? A Prospective Controlled Study*'.
39. 'Best presentation award' for the paper co-authored and titled '**99mTc-ecd brain SPECT in mild traumatic brain injury- a prospective study**' presented at the **50<sup>th</sup> annual meeting of the Society of Nuclear Medicine in New Orleans, USA in July 2003.**
40. Awarded the NSI traveling fellowship to attend the **49<sup>th</sup> annual conference of the neurological society of India, December 2002, Kochi, India** and present the paper titled '*Role Of Piracetam In Post-Concussion Syndrome –A Prospective Randomized Study*'.
41. Awarded the Indian society of pediatric neurosurgery traveling fellowship to attend the **Eleventh annual conference of pediatric neurosurgery Oct 2001, Nagpur, India** and present a paper titled '*Profile Of Pediatric Brain Abscesses Over A Five Year Period*'.
42. Received 2nd prize for paper titled '*Role of ranitidine as an immunomodulator in surgical patients-a double blinded randomized controlled trial*' presented at the **annual conference of the Delhi chapter of association of surgeons of India in 1993.**



## **EDITORIAL BOARD**

1. The open spine journal

## **REVIEWER**

1. JNNP
2. Child's Nervous System
3. Oman Medical Journal

## **PUBLICATIONS**

### **Chapter in book(s)**

1. **Agrawal D**, Mahapatra AK. Traumatic dural venous sinus thrombosis. In Textbook of head Injury. Mahapatra AK (ed.) Modern Publishers, Delhi 2005.
2. **Agrawal D**, Mahapatra AK. Minor head injury. In Textbook of head Injury. Mahapatra AK (ed.) Modern Publishers, Delhi 2005.
3. **Agrawal D**, Mahapatra AK. Molecular Biology of Gliomas-the story so far: In Molecular and cellular Biology. Thakur R S, Prasad S (eds.) Narosa publications, New Delhi 2004.
4. **Agrawal D**, Mahapatra AK. Brain tumors in Children. In Essentials of Pediatric Neurology. Talukdar B (ed) New Age International (P) Ltd, New Delhi 2005
5. Mahapatra AK, **Agrawal D**. Advances in head injury management. In Progress in Neurosciences. KK Singh, PK Sahoo, Mukherjee et al (eds) Vol III, 2004; 1-7.
6. Mahapatra AK, **Agrawal D**. Spinal dysraphism-An overview. In Spine (Continuing orthopedic education). A Jain, sudhir Kumar (eds.) Ashoka comprint Pvt Ltd. Gaziabad 2003;47-61.
7. **Agrawal D**, Mahapatra,AK. Postoperative Cerebral Venous Infarction. In Brain Haemorrhage. Mahapatra AK (ed.) Jaypee Medical publishers Pvt Ltd, Delhi 2007; 162- 165
8. **Agrawal D**, Mahapatra,AK. Intracranial hemorrhage secondary to vasculitis. In Brain Haemorrhage. Mahapatra AK (ed.) Jaypee Medical publishers Pvt Ltd, Delhi 2007; 166-174
9. **Agrawal D**, Mahapatra,AK. Spontaneous intracranial extradural hematomas. In Brain Haemorrhage. Mahapatra AK (ed.) Jaypee Medical publishers Pvt Ltd, Delhi

2007; 166-174

10. Mahapatra AK, Agrawal D. Biomechanics of head injury. In Textbook of Neurosurgery. Tandon PN (ed) (In print)
11. Chhabra G, Rangarajan K, Subramanian A, Agrawal D. White Blood Cells in Head Injury. Brain Injury / Book 1", ISBN 978-953-307-614-0 (In print)
12. Mahapatra AK, Agrawal D. Anterior Encephaloceles. In ISPN textbook of Pediatric Neurosurgery. 2011 (Online)

## Papers

### In Pubmed Indexed Journals

#### Original research studies:

13. [Agrawal D, Naveen K, Bal CS, Pant M, Mahapatra AK. Postconcussion syndrome in the pediatric population- is medial temporal damage responsible? A prospective controlled study. J Neurosurg 2005;102:167-171.](#)
14. [Agrawal D, Steinbok P, Cochrane D. Long Term Anthropometric Outcomes Following Surgery for Isolated Sagittal Craniosynostosis. J Neurosurg 2006;105:357-60.](#)
15. [Agrawal D, Gowda NK, Bal CS, Kale SS, Mahapatra AK. Have cranio-vertebral junction anomalies been overlooked as a cause of vertebro-basilar insufficiency?-A prospective controlled study. Spine 2006 Apr 1;31\(7\):846-50.](#)
16. [Gowda NK, Bal CS, Agrawal D, AK Mahapatra. Tc-99mECD Brain Spect in Mild Traumatic Brain Injury-A Prospective Study. AJNR 2006 Feb;27\(2\):447-51.](#)
17. [Agrawal D, Steinbok P, Cochrane D. Reformation of the sagittal suture following surgery for isolated sagittal craniosynostosis. J Neurosurg 2006;105 \(2suppl\):115-117.](#)
18. [Agrawal D, Mahapatra AK. Visual outcome of blind eyes in pituitary apoplexy following trans-sphenoidal surgery: a series of 14 eyes Surg Neurol 2005;63\(1\):42-6](#)
19. [Agrawal D, Suri A, Mahapatra AK. Primary excision of pediatric posterior fossa abscesses--towards zero mortality? A series of nine cases and review. Pediatr Neurosurg 2003;38:63-7.](#)
20. [Agrawal D, Steinbok P, Cochrane D. Diagnosis of Isolated Sagittal Synostosis: are radiographic studies necessary? Childs Nerv Sys 2006 Apr;22\(4\):375-378.](#)
21. [Agrawal D, Steinbok P, Cochrane D. Pseudo-closure of Anterior Fontanelle by Wormian Bone in Isolated Sagittal Craniosynostosis. Ped Neurosurg 2006;42\(3\):135-7.](#)  
[Agrawal D, Steinbok P, Cochrane D. Significance of Beaten Copper Appearance on Skull Radiographs in Children with Isolated Sagittal Synostosis. Childs Nerv Sys](#)

[2007;23\(12\):1467-70.](#)

22. [Agrawal D, Sharma BS, Gupta A, Mehta VS. Efficacy and results of expansive laminoplasty in patients with severe cervical myelopathy due to cervical canal stenosis. Neurology India 2004;52:54-58.](#)
23. [Agrawal D, Gupta A, Mehta VS. Role of shunt surgery in pediatric tubercular meningitis with hydrocephalus. Indian Pediatrics 2005;42:250-250](#)  
[Mahapatra AK, Agrawal D. Anterior encephaloceles- a series 103 cases over 32 years. J Clin Neurosci 2006 Jun;13\(5\):536-9.](#)
24. [Nayak PK, Agrawal D, Gowda NK, Bal CS, Mahapatra AK. Does cerebral perfusion improve following CSF Diversion in Pediatric Hydrocephalus? A prospective study using 99Tc ECD SPECT. Ped Neurosurg 2005;41\(3\):117-21.](#)
25. [Deb P, Sharma MC, Mahapatra AK, Agrawal D, Sarkar C. Glioblastoma multiforme with long term survival. Neurol India. 2005 Sep;53\(3\):329-32.](#)
26. [Sinha S, Agrawal D, Mahapatra AK. Split cord malformations: an experience of 203 cases. Child's Nerv Sys 2005;3.](#)
27. [Sharma MS, Gupta A, Kale SS, Agrawal D, Mahapatra AK, Sharma BS. Gamma knife radiosurgery for glomus jugulare tumors: Therapeutic advantages of minimalism in the skull base. Neurology India 2007;55:372-376](#)
28. [Kasliwal MK, Kale SS, Gupta A, Kiran NAS, Sharma MS, Agrawal D, Sharma BS, Mahapatra AK. Does hemorrhagic presentation in cerebral arteriovenous malformations affect obliteration rate after gamma knife radiosurgery?, Clinical Neurol Neurosurg 2008;110\(8\):804-9.](#)
29. [Agrawal D, Steinbok P. Fiducials: Achilles' heel of image-guided neurosurgery: an attempt at indigenization and improvement. Clin Neurosurg. 2009;56:80-3.](#)
30. [Sharma MS, Singh R, Kale SS, Agrawal D, Sharma BS, Mahapatra AK. Tumor control and hearing preservation after Gamma Knife radiosurgery for vestibular schwannomas in neurofibromatosis type 2. J Neurooncol. 2010 Jun;98\(2\):265-70](#)
31. [Steinbok P, Milner R, Agrawal D, Farace E, Leung GK, Ng I, Tomita T, Wang E, Wang N, Chu Wong GK, Zhou LF. A Multicenter Multinational Registry for Assessing Ventriculoperitoneal Shunt Infections for Hydrocephalus. Neurosurgery. 2010 Sep 23.](#)
32. [Rangarajan K, Subramanian A, Agrawal D, Chatterjee K. Trauma patient with M-antibody. Indian J Pathol Microbiol. 2010;53:574-5.](#)
33. [Chhabra G, Rangarajan K, Subramanian A, Agrawal D, Sharma S, Mukhopadhyay](#)

AK. Hypofibrinogenemia in isolated traumatic brain injury in Indian patients. Neurol India. 2010;58:756-7.

34. Rangarajan K, Subramanian A, Sagar S, Kumar S, Agrawal D. Maximum Surgical Blood Ordering Schedule (MSBOS) in a Tertiary Trauma Centre in Northern India: a proposal. JETS. 2011 (In print)
35. Agrawal D. Transforming Trauma Healthcare Delivery in Rural Areas by Use of an Integrated Call Center. JETS 2011 (In print)
36. [Kurwale N, Agrawal D. Phase Contrast MRI of Intracranial Shunt Tube: A Valuable Adjunct in the Diagnosis of Ventriculo-Peritoneal Shunt Malfunction. Neurosurgery. 2011 Sep;69 Suppl Operative:138-42.](#)
37. [Joshua SP, Agrawal D, Sharma BS, Mahapatra AK. Papilloedema as a non-invasive marker for raised intra-cranial pressure following decompressive craniectomy for severe head injury. Clin Neurol Neurosurg. 2011 Oct;113\(8\):635-8. Epub 2011 Jun 14.](#)
38. [Ailawadhi P, Agrawal D, Satyarthee G D, Gupta D, Sinha S, Mahapatra A K. Use of O-arm for spinal surgery in academic institution in India: Experience from JPN apex trauma centre. Neurology India 2011;59:590-593.](#)

#### **Case Reports & letters**

39. [Agrawal D, Steinbok P, Cochrane D. Scaphocephaly or Dolichocephaly? J Neurosurg \(Pediatr\) 2005;102:253-254.](#)
40. [Agrawal D, Steinbok P. Simple technique of Head Fixation for Image Guided Neurosurgery in Infants. Child's Nerv Sys 2006;22:1473-1474.](#)
41. [Agrawal D. Endovascular treatment for poorest-grade subarachnoid hemorrhage in the acute stage: has the outcome been improved? Neurosurgery 2003;52:481-2.](#)
42. [Agrawal D. Arteriovenous malformation radiosurgery grading. J Neurosurg 2002;97:740.](#)
43. [Agrawal D. Vasospasm. J Neurosurg 2002;96:382-3.](#)
44. [Kiran S, Agrawal D. Papaverine and vasospasm. J Neurosurg. 2005 Jan;102\(1\):181; author reply 181-2.](#)
45. [Agrawal D, Mahapatra AK. Unusual radiological presentation of PCNSL. J Neurooncol. 2005 Sep;74\(2\):155-6.](#)
46. [Agrawal D, Chaturvedi DK. Relationship between shunt-dependent hydrocephalus and SAH. Br J Neurosurg 2004;18:403-404.](#)
47. [Agrawal D, Mahapatra AK. Pituitary apoplexy and inappropriate ADH secretion. J Clin Neurosci 2003;10:260-1.](#)

48. [Agrawal D, Suri A, Mahapatra AK, Sharma MC. Intramedullary neurenteric cyst presenting as infantile paraplegia: a case and review. \*Pediatr Neurosurg\* 2002;37:93-6. Review.](#)
49. [Agrawal D, Suri A, Mahapatra AK. Orbital tuberculosis with abscess. \*J Neuroophthalmol\* 2002;22:208-10.](#)  
[Agrawal D, Mahapatra AK. Spontaneous subdural hematoma in a young adult with hemophilia. \*Neurology India\* 2003;51:114-115.](#)
50. [Agrawal D, Mahapatra AK Multiple intracranial meningiomas do not imply neurofibromatosis. \*Neurology India\* 2005;53:256.](#)
51. [Agrawal D, Mahapatra AK. Vertically acquired neonatal citrobacter brain abscess- case report and review of literature. \*J Clin Neurosci\* 2005;12\(2\):188-190.](#)
52. [Agrawal D, Mahapatra AK. Giant occipital encephalocoele with microcephaly and micrognathia. \*Pediatr Neurosurg\* 2004;40:205-206.](#)
53. [Kasliwal M, Agrawal D, Mahapatra AK. MR Imaging in Anaplastic Oligodendroglioma. \*J Neurooncol\* 2005 Aug;74\(1\):97-8.](#)
54. [Agrawal D, Cochrane D. Traumatic Retroclival Epidural Hematoma-A Pediatric Entity? \*Childs Nerv Sys\* 2006 Mar 21](#)
55. [Agrawal D, Durity FA. Seizure as a Manifestation of Intracranial Hypotension in a Shunted Patient. \*Ped Neurosurgery\* 2006;42\(3\):165-7](#)
56. [Agrawal D, Singhal A, Hendson G, Durity FA. Gyriiform differentiation in Medulloblastoma. \*Ped neurosurgery\* 2007;43:142-145.](#)
57. [Kasliwal MK, Agrawal D, Mahapatra AK. Magnetic resonance imaging of primary orbital Ewing's sarcoma. \*Pediatr Neurosurg.\* 2005 Jul-Aug;41\(4\):192-6.](#)
58. [Agrawal D, Hussain N. Decompressive craniectomy in cerebral toxoplasmosis. \*EJMCD\* 2005 Nov;24\(11\):772-3.](#)
59. [Agrawal D, Mishra NK, Mahapatra AK. Fusiform aneurysm of the persistent trigeminal artery-case report and review of literature. \*J Clin Neurosci\* 2005;12:500-3.](#)
60. [Kurve A, Agrawal D. Mannitol-the Holy Grail of head injury? \*J Neurosurg\* 2004;101:567-8.](#)
61. [Garg A, Agrawal D, Suri A, Mahapatra AK. Subdural Empyema in a case of Gaucher Disease: a rare presentation. \*Ped Neurosurg\* 2007;43\(6\):531-2.](#)
62. [Kasliwal M, Kiran S, Agrawal D, Sharma BS. Giant colloid cyst in a child. \*Ped Neurosurg\* 2007;43:442-443.](#)
63. [Agrawal D, Steinbok. Reply to the letter by Dr. Muzumdar on the article "Simple](#)

[technique of head fixation for image-guided neurosurgery in infants".Childs Nerv Syst 2007;23:613.](#)

64. [Kasliwal M, Agrawal D, Sharma BS, Mishra NK. Sudden cardiac arrest in a successfully embolized case of giant vertebral artery aneurysm with hydrocephalus. Surgical Neurology 2007;67:652– 653.](#)
65. [Kasliwal M, Agrawal D, Sharma BS. Fatal intratumoral hemorrhage following ventriculo-peritoneal shunt. Turkish Neurosurgery 2008;18:436-438](#)
66. [Kasliwal MK, Agrawal D. Intrinsic brainstem glioma mimicking an ependymoma. Pediatr Radiol. 2009;39:125](#)
67. [Agrawal D, Mishra S. Post-Traumatic Intradiploic Pseudomeningocele. Indian Pediatrics 2010;47:272-273.](#)
68. [Borkar SA, Prasad GL, Agrawal D, Sharma BS. Cerebellar hemorrhage following supratentorial decompressive craniectomy for severe traumatic brain injury. Neurol India. 2009;57:681-2.](#)
69. [Naik V, Goyal N, Agrawal D. Pin site bilateral Epidural hematoma- a rare complication of using Mayfield clamp in Neurosurgery. Neurol India 2011;59:649-651.](#)
70. Kasliwal MK, **Agrawal D**, Sharma BS. Frontal intra-axial mass lesion in an adult. Invasive aspergillosis. J Clin Neurosci. 2011 Sep;18(9):1230, 1283.

### **Embase indexed publications**

#### **Original research studies**

71. Agrawal D, Naveen K, Bal CS, Mahapatra AK. Postconcussion vertigo: Is the cause central? Correlation with single photon computed tomography. **Neurosciences Today** 2003;7:33-36.
72. [Mahapatra AK, Agrawal D, Satyarthee GD. Surgery of Petroclival Tumors: A Series of 45 Cases. Pan Arab J Neurosurg 2008;12:31-36.](#)
73. [Hussain N, Vaishya S, Agrawal D, Mahapatra AK, Surgery in Adult Spinal Dysraphism: A Series of 51 Patients. Pan Arab J Neurosurg 2007, 11:23-25.](#)
74. [Agrawal D, Gowda, NK. piracetam in postconcussion syndrome: preliminary results of a randomised controlled study using SPECT. IJNT 2007;4:109-114.](#)
75. [Kumar A, Lalwani S, Agrawal D, Rautji R, Dogra TD. Fatal road traffic accidents in South Delhi region and their relationship with head injuries: An epidemiological survey over five years. IJNT 2008;5:63-67.](#)
76. [Ahmed S, Khan S, Agrawal D, Sharma BS. Out come in Head Injured patients :](#)

[Experience at a level 1 Trauma Centre. IJNT 2009;2:119-122](#)

77. [Amit Thapa, Deepak Agrawal Mount Fuji Sign in tension pneumocephalus. IJNT 2009;2:130-132](#)
78. [Basheer N, Gupta D, Sathyarthi GD, Agrawal D, Sinha S, Kale SS, Sharma BS, Mahapatra AK. Dorsolumbar spinal trauma : a single institutional experience of 94 cases at level I apex trauma centre. IJNT 2010;7:55-60.](#)
79. [Ailawadhi P, Agrawal D, Sharma BS. Delayed rise in intracranial pressure in patients with head injury IJNT 2010;7:37-40](#)
80. [Joshua SP, Agrawal D, Satyarthee GD, Gupta DK, Sinha S. Cranioplasty as a surrogate marker for excellent outcome in severe head injury. IJNT 2011;8:7-10](#)
81. [Ahmed S, Agrawal D, Kale SS, Mahapatra AK. A comparative study of treatment of chronic subdural hematoma – burr hole drainage versus continuous closed drainage. IJNT 2011;8:17-24.](#)

#### **Review articles**

82. [Agrawal D, Mahapatra AK. Coagulopathy following pediatric head injury and its importance in predicting outcome. Indian J Neurotrauma 2004;1\(1\):17-20.](#)
83. [Agrawal D, Mahapatra AK. Problems with 'Minor' head injuries. \(Review\) Asian Archives of Anesthesiology and Resuscitation 2004;60\(2\):17-25.](#)
84. [Agrawal D, Mahapatra AK. Traumatic dural venous sinus thrombosis-still an enigma? \(Review\) Neurosciences Today 2004;8: 26-28.](#)
85. [Agrawal D, Mahapatra AK. Levodopa treatment in Severe Head Injury. IJNT 2006;2:73-76.](#)
86. [Agrawal D, Mahapatra AK. Advances in Management of minor head injuries. Neurosciences Today 2004;8:77-80.](#)
87. [Agrawal D, Mahapatra AK. Postoperative cerebral venous infarction. Neurosciences Today 2005;9:11-13.](#)
88. [Mahapatra AK, Agrawal D, Kumar R. Minor Head Injury. IJNT 2008;5:69-72](#)

#### **Case Reports**

89. [Agrawal D, Mahapatra AK. Role of Valproic acid in causing hypotension and hypothermia. Neurosciences Today 2003;3:148-149.](#)
90. [Agrawal D, Mahapatra AK. Cystic 'mirror' brain metastasis. Neurosciences Today 2004;8:92-93.](#)

91. [Ahmad FU, Agrawal D, Mahapatra AK. Triple meningocele: Cause for a new theory? J Pediatr Neurosci 2007;2:39-40.](#)
92. [Agrawal D, Mahapatra AK. Complex split-cord malformation associated with situs inversus totalis. J Pediatr Neurosci 2007;2:11-12](#)
93. [Behera B, Naik V, Mathur P, Agrawal D: Identification of Kocuria rosea by Vitek 2 GP Card: The Internet Journal of Medical Informatics. 2008;3:2](#)
94. [Ahmad FU, Agrawal D, Singh MM, Mahapatra AK: Acute epidural haematoma following Ventriculoperitoneal shunt in an adult. Pan Arab J Neurosurg 2008;12:118-120.](#)
95. [Tripathi AK, Agrawal D. Hydrocephalic Holoprosencephaly: An Oxymoron? Insights into etiology and management. J Pediatr Neurosci 2009;4:41-42.](#)
96. [Thapa A, Agrawal D. Mount Fuji Sign in tension pneumocephalus. IJNT 2009;6:161-162.](#)
97. [Kurwale SN, Agrawal D, Sharma BS. Astroblastoma: A radio-histological diagnosis. J Pediatr Neurosci 2008;3:160-162.](#)

## **RESEARCH PROJECTS (EXTRA-MURAL)**

### As Principal Investigator

1. A Registry for Comparing Catheter-Related Infection Rates Among Various Shunt Systems in the Treatment of Hydrocephalus. (Project with Codman corporation, USA).
2. Effect of Early Enteral Nutrition on Outcome in Severely Head Injured Patients- A Prospective Controlled Study (Project with ICMR)

### As Co-Investigator

1. Brain trial (Bradykinin B2 receptor antagonist in Neurotrauma): A multicentric randomised trial by London school of Hygiene & Tropical medicine
2. DECRA trial (Decompressive craniectomy in severe head injury): A multicentric randomised trial being conducted in USA.
3. CRASH2 trial: A multicentric randomised trial by London school of Hygiene & Tropical medicine

### As Project Coordinator :

Phase II multi-center, open-label, active-controlled, randomized parallel-group dose finding trial to evaluate the efficacy and safety of two doses of an antisense oligonucleotide in

adult patients with recurrent high-grade glioma, administered intratumorally as a continuous high-flow microperfusion over a 7-day period every other week. (Project with Antisense Pharma, Germany)

## **RESEARCH PROJECTS (INTRAMURAL)**

### *AsPrincipal Investigator:*

- 1. Role of Thalamus in diffuse axonal injury: An autopsy study with histopathological correlation. (Project funded by AIIMS)**
- 2. Should piracetam be prescribed in mild traumatic brain injury? - A prospective controlled study** *Objective:* To correlate the symptomatic improvement (if any) with SPECT scan findings, in patients with post-concussion syndrome, following administration of Piracetam (Nootropil®). *Paper presented at the International conference on recent advances in neurotraumatology (IRCAN) held in Bali, Indonesia in August 2002.*
- 3. Unilateral Electroconvulsive Therapy in Rabbit Stroke Model: Evaluation Using Single Photon Emission Computed Tomography** *Objective:* To evaluate the efficacy of unilateral electroconvulsive therapy (UECT) for cerebral protection following induced stroke in rabbits. *Paper presented in award paper category at the annual conference of NSI, held in Madurai, India in December 2006*
- 4. Post concussional vertigo with electrophysiological and cerebral perfusion monitoring.** *Objective:* To correlate visual and brain stem auditory evoked responses with cerebral perfusion studies using SPECT in post concussional vertigo. *Paper presented in award paper category at the annual conference of neuro-otological and equilibrimetric society of India, held in Bombay, India in September 2002.*
- 5. Indications and timing of shunt surgery in tubercular meningitis.** *Objective:* To evaluate the indications and timing for Ventriculo-peritoneal shunting in cases of tubercular meningitis (TBM), presenting with hydrocephalus over a three year period at All India institute of medical sciences.
- 6. Visual outcome of 'pl negative' eyes in pituitary apoplexy following trans-sphenoidal surgery- a series of 14 eyes.** *Objective:* To study the temporal course of 'PL negative' eyes following surgical intervention in cases of symptomatic pituitary apoplexy, and to identify factors which may have a bearing on the visual outcome.
- 7. Profile of pediatric brain abscesses over a five year period.** A retrospective study

to see for changing pattern of brain abscesses in children as well as to formulate the optimum management strategy for pediatric posterior fossa abscesses.

## **THESIS**

- 1. Efficacy of dural tenting sutures in preventing extradural hematoma during routine surgery:** A randomized controlled trial.
- 2. Laminoplasty in cervical canal stenosis- efficacy and results.** A retrospective study done over a five-year period.
- 3. Role of ranitidine as an immunomodulator in surgical patients-a double blinded randomized controlled trial.** This prospective study was carried out as part of a dissertation submitted during surgical registrarship

## **CME WORKSHOPS & CONFERENCES ATTENDED**

1. Annual AIIMS Microneurosurgical workshop held at All India Institute of Medical Sciences, February, 2001, New Delhi, India.
2. 12th annual conference of Indian society of pediatric neurosurgery 3<sup>rd</sup>-4<sup>th</sup> November 2001, Nagpur, India
3. 4<sup>th</sup> Annual Conference DNA & 1<sup>st</sup> Neuro Nurses update 2-3<sup>rd</sup> february, 2002, New Delhi, India.
4. Annual AIIMS Microneurosurgical workshop held at All India Institute of Medical Sciences, 8-10 February, 2002, New Delhi, India.
5. Neurosciences Update-2002, 13-14<sup>th</sup> July, 2002, New Delhi, India.
6. International conference on recent advances in neurotraumatology (IRCAN) August 2002, Bali, Indonesia.
7. Annual conference of the Indian Society of Neurotrauma, August 20-22, 2002, Agra, India
8. First Mid-neuroconference of Neurological society of India, 23<sup>rd</sup>-25<sup>th</sup> August 2002, New Delhi, India.
9. Live Surgery Workshop and XXIV Annual Conference NES, September 7-9, 2002, Mumbai, India.
10. 51<sup>st</sup> annual conference of the Neurological society of India, 14-17<sup>th</sup> December 2002, cochin, India
11. Annual AIIMS Microneurosurgical workshop held at All India Institute of Medical

Sciences, 14-16 February, 2002, New Delhi, India.

12. 31<sup>st</sup> Annual Meeting of the International Society of Pediatric Neurosurgery, Sept 14<sup>th</sup>-18<sup>th</sup> 2003, Monaco, Europe
13. Annual conference of the Indian society of pediatric neurosurgery, November 2003, Lucknow, India
14. 52<sup>nd</sup> annual conference of the Neurological society of India, 12-15 December 2003, Chandigarh, India.
15. XXI Annual conference of national association of critical care medicine and disaster medicine, 20-21<sup>st</sup> December 2003, New Delhi, India.
16. 5<sup>th</sup> World Stroke Congress, 23-26 June 2004, Vancouver, Canada
17. Annual AANS conference 16-21 April 2005, New Orleans, USA
18. Annual CCNS conference 14-18 June 2005, Ottawa, Canada.
19. Annual ISPN meeting, 13-15 September 2005, Vancouver, Canada
20. Annual IndSPN meeting October 2005, New Delhi, India
21. Annual AIIMS Microneurosurgical workshop held at All India Institute of Medical Sciences, 14-16 February, 2006, New Delhi, India
22. Asian congress of neurological surgeons, Feb 2006, Mumbai, India
23. Annual ISCISCON conference, March 2006, New Delhi, India.
24. Annual conference of ISPN, September 2006. Taipei, Taiwan
25. 55<sup>th</sup> annual conference of the Neurological society of India, 20-24 December 2006, Madurai, India.
26. 9<sup>th</sup> Annual AIIMS microneurosurgery workshop held at All India Institute of Medical Sciences, 14-15 February, 2007, New Delhi, India
27. 4<sup>th</sup> SAN Congress, February 15-18, New Delhi, India
28. Ginde Oration & Hands-on cadaveric workshop on endoscopic skull base surgery, Bombay Hospital, 31<sup>st</sup> March-2 April 2007, Mumbai, India
29. 1<sup>st</sup> National radiosurgery update & Gamma-Knife workshop, All India Institute of Medical Sciences, 14-15 April 2007, New Delhi
30. Annual conference of the skull base society of India, All India Institute of Medical Sciences, 14-17 October 2007, New Delhi
31. Annual CNS meeting, San Diego, USA, Sep 14-17, 2007
32. Ramban Trauma course, Haifa, Israel, Dec 8-23, 2007
33. 10<sup>th</sup> Annual AIIMS microneurosurgery workshop held at All India Institute of Medical Sciences, 14-15 February, 2008, New Delhi, India

34. Ginde Oration, Bombay Hospital, 31st March 2008, Mumbai, India
35. WFNS Education Course & hand-on cadaveric workshop, May 9 - 11th 2008, Goa, India
36. Annual conference of ACNS in Beijing, China June 20-23, 2008
37. Annual CNS meeting, Orlando, USA, Sep 21-25, 2008
38. Annual conference of ESSFN, Rimini, Italy, Oct 5-8, 2008
39. Annual meeting of IndSPN, Coimbatore, India, Nov 8-9, 2008
40. Trauma 2008, New Delhi, India 29-30 Nov 2008
41. Annual NSI conference, Pune, India 14-17 Dec 2008
42. 11 Annual AIIMS microneurosurgery workshop held at All India Institute of Medical Sciences, 14-15 February, 2009, New Delhi, India
43. Annual DNA conference held at All India Institute of Medical Sciences, February, 2009, New Delhi, India
44. Annual Neurotrauma conference at Jaipur, August 7-9, 2009
45. Instructional spine course at Khajurao, India, August 14-16, 2009
46. Annual CNS meeting, New Orleans, USA, October 23-29, 2009
47. ASEPA workshop, AIIMS, New Delhi, November 7-9, 2009
48. Trauma 2009 International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
49. 12th Annual AIIMS microneurosurgery workshop held at All India Institute of Medical Sciences, 14-15 February, 2010, New Delhi, India
50. MRMCM-2010 conference held in DRDO Bhawan from 6-7 May 2010
51. AO spine spinal workshop & cadaveric course held in AIIMS from 5-8 November 2010
52. Trauma 2010 international conference held in AIIMS, Nov 26-8, 2010
53. Joint meeting of the 59th Annual Conference of the Neurological Society of India & CNS, USA, 16-9 December 2010 at Jaipur, India.

### **CME's, workshops & conferences organised**

1. Course director for AIIMS BECC course and held 2 courses in various parts of India during 2009-2010 in partnership with NHRM (national rural health mission)
2. Faculty in ATLS courses held round the year at JPNATC, AIIMS

3. Co-organising secretary of Trauma 2008 international congress, JPN Apex trauma Centre, AIIMS, New Delhi, India 28 -30 Nov 2008
4. Course director for 'Neurotrauma workshop' conducted as a part of 'Trauma 2008' at JPN Apex trauma Centre, AIIMS, New Delhi, India 28 Nov 2008
5. Course director for 'Computerisation workshop' conducted as a part of 'Trauma 2008' at JPN Apex trauma Centre, AIIMS, New Delhi, India 28 Nov 2008
6. Organising chairman for nursing CME held weekly at JPN Apex trauma Centre, AIIMS, New Delhi since March 2009
7. Convener for 'Neurotrauma conference' conducted as a part of 'Trauma 2008' at JPN Apex trauma Centre, AIIMS, New Delhi, India 28 Nov 2008
8. Course director for Trauma Nursing workshop in 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
9. Convener of Nursing conference in 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
10. Co-Organising Secretary for MRMCM-2010 conference held in DRDO bhawan from 6-7 May 2010
11. Course director for 'Nursing workshop' conducted as a part of 'Trauma 2010' at JPN Apex trauma Centre, AIIMS, New Delhi, India 26 Nov 2010
12. Course director for 'Research methodology workshop' conducted as a part of 'Trauma 2010' at JPN Apex trauma Centre, AIIMS, New Delhi, India 26 Nov 2010
13. Convener of Nursing conference in 'Trauma 2010' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 27-28 November, 2010
14. Organising Secretary of National Consultative Workshop on Cost-effective Information technology in Healthcare, All India Institute of Medical Sciences, New Delhi on 5<sup>th</sup> March 2011.
15. Organising secretary of 'Management of complex spinal trauma-live operative workshop & symposium' on 27 August at JPNATC, AIIMS
16. Organising secretary of 1st International summit and workshop on Cost Effective & Meaningful Use of Technology in Emergency Healthcare (CEUTEH 2011) from 27-30 October 2011 at AIIMS, New Delhi

### **Sessions chaired at conferences**

1. Neurotruma session at Annual conference of ACNS in Beijing, China June 20-23, 2008
2. Neurotrauma conference conducted as a part of 'Trauma 2008' at JPN Apex trauma Centre, AIIMS, New Delhi, India 28 Nov 2008
3. Chaired session in 'Instructional Spine Course', held in Khajurao, India 28-30 Aug 2009
4. Nursing conference in 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
5. Chairperson for MRMCM-2010 conference held in DRDO bhawan from 6-7 May 2010
6. Chairperson for National Consultative Workshop of Stakeholders-Addressing Problems Related to Alcohol Use 12<sup>th</sup> & 13<sup>th</sup> May, 2010 - NISD, New Delhi
7. Course director for AIIMS BECC course and held 5 courses in various parts of India during 2010-2011 in partnership with NHRM (national rural health mission)
8. Chairperson for National Consultative Workshop on Cost-effective Information technology in Healthcare, All India Institute of Medical Sciences, New Delhi on 5<sup>th</sup> March 2011

### **Invited Speaker At conference(s)**

1. ATLS instructor and regular speaker at ATLS courses in India
2. 'Image guided surgery for pituitary adenomas' at STEROCAN 2007, Kolkata, India; 13-14 October 2007
3. 'Cost-effective computerisation in Indian Hospitals- our experience' at Trauma 2008, New Delhi, India 29-30 Nov 2008
4. 'Head injury management at JPN apex trauma Centre' at Trauma 2008, New Delhi, India 29-30 Nov 2008
5. 'Image guidance in Neurosurgery-Towards improved quality and outcome' at DNACON 2009, AIIMS, New Delhi 7-8 February 2009
6. 'Cost effective computerisation in Hospitals' during a symposium on 'Advances in information Technology in Medical Sciences' at LHMC & Assoc hospitals, 28

February 2009

7. 'Head injury management' in Trauma workshop at Coimbatore, India 30 October 2009
8. 'How to Leverage Technology in improving Research Quality & in Writing Papers Quickly- A primer for researchers' at 'Trauma 2009' International congress & second annual conference of ISTAC, JPN Apex trauma centre, AIIMS, New Delhi 12-15 November, 2009
9. 'Data on alcohol related Injuries" at National Consultative Workshop of Stakeholders- Addressing Problems Related to Alcohol Use 12<sup>th</sup> & 13<sup>th</sup> May, 2010 - NISD, New Delhi
10. 'Computerization for nurses' at Nursing workshop & conference, Trauma 2010 international conference held in AIIMS, Nov 26-8, 2010.
11. 'Research methodology & paper writing for nurses' at Nursing workshop & conference, Trauma 2010 international conference held in AIIMS, Nov 26-8, 2010.

#### **ABSTRACTS PRESENTED AT CONFERENCES**

1. Agrawal D, Transforming Neurosurgical Healthcare Delivery in Rural Areas by use of Integrated Call centre(s)' Joint meeting of the 59th Annual Conference of the Neurological Society of India & CNS, USA, 16-9 December 2010 at Jaipur, India
2. Agrwal D, Neurosurgery at JPN Apex Trauma Centre- The journey till now' at Joint meeting of the 59th Annual Conference of the Neurological Society of India & CNS, USA, 16-9 December 2010 at Jaipur, India
3. Agrawal D, 'Traumatic Quadriplegia- Indian Experience at a level I Trauma Centre' at Joint meeting of the 59th Annual Conference of the Neurological Society of India & CNS, USA, 16-9 December 2010 at Jaipur, India
4. Borkar S, Agrawal D, AK Mahapatra 'Remote site intracranial hemorrhage' at Joint meeting of the 59th Annual Conference of the Neurological Society of India & CNS, USA, 16-9 December 2010 at Jaipur, India
5. Joshua PS, Agrawal D, 'Cranioplasty as a surrogate Marker for Excellent Outcome in Severe Head Injury' at Joint meeting of the 59th Annual Conference of the Neurological Society of India & CNS, USA, 16-9 December 2010 at Jaipur, India
6. Sharma S, Agrawal D Outcome of Patients with Head Injury with admission GCS 3 at the Annual conference of NTSI at Ranchi from 12-14 August 2011
7. Avijit S, Agrawal D Decompressive Craniectomy in pediatric "minor" head injuries

at the Annual conference of NTSI at Ranchi from 12-14 August 2011

8. Rathore Y, Agrawal D Clinical infection in the face of negative cultures Utility of empirical antibiotics in neurosurgery ICU at a level 1 Trauma Centre at the Annual conference of NTSI at Ranchi from 12-14 August 2011
9. Sahoo S, Agrawal D Role of Decompressive Craniectomy in minor Head Injuries at the Annual conference of NTSI at Ranchi from 12-14 August 2011
10. Sharma S, Agrawal D Diffuse Axonal Injury in severe head injury: an autopsy study of 30 patients at the Annual conference of NTSI at Ranchi from 12-14 August 2011
11. Agrawal D: Usefulness of Navigated O-arm in a Teaching Centre for Spinal Trauma at 'Spine 2011' at Bangalore from 9-11 September 2011

## **MEMBER**

### **Founder member & Executive member**

70. Indian Society of Trauma and acute care (ISTAC)

### **Life member**

70. Asian Conference of Neurological Surgeons (ACNS)
71. Neurotrauma society of India
72. Neuro-otological and equilibrimetric society of India
73. Delhi neurological association
74. Skull Base society of India
75. Indian Society of Pediatric Neurosurgery
76. Neurological society of India

### **Member**

70. Congress of Neurological Surgeons (CNS)
71. AANS