

## Dr. Karanbir Singh

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### Awards:

- **Received Micheal E. Cohen Residents' Research Award 2014 and 2015**, for the project "Safety of Intravenous Thrombolysis for Acute Ischemic Stroke in Patients with Pre-Existing Intracranial Neoplasms and Cerebral Aneurysms". This project aimed at redefining the treatment guidelines for intravenous thrombolysis which is the only FDA approved pharmacological therapy for acute ischemic stroke.
- **Received Quality Improvement Award from University at Buffalo Graduate Medical Education (UBGME)** for the project "Time is Brain" aimed at reducing time to thrombolysis in acute ischemic stroke patients at Gates Vascular Institute from University at Buffalo.
- Residency in-service training exam 2014: **99 percentile. Among top 1% of the Neurology residents in USA.**
- Residency in-service training exam 2015: **99 percentile. Among top 1% of the Neurology residents in USA.**
- American Board of Psychiatry and Neurology certified: November, 2015.

### Editorial Positions:

- Serving on the editorial board for Annals of Neurology and Neuroscience since October 2015.
- Serving as a section editor of Neurology for open journal of clinical and medical case reports since January 2015.

### Research Projects:

1. **Safety of Intravenous Thrombolysis for Acute Ischemic Stroke in Patients with Pre-Existing Intracranial Neoplasms.** Karanbir Singh, MD; Ashkan Mowla, MD; Sandhya Mehla, MBBS; Mohammad K. Ahmed, MBBS; Peyman Shirani, MD; Robert N. Sawyer, MD; Haris Kamal, MD; Annemarie Crumlish, CCRC; Marilou Ching, MD, MPH, FACP. A retrospective de novo study looking at the actual risk of intravenous thrombolysis in stroke patients with intracranial neoplasms which currently is an exclusion criterion for thrombolysis. **Published in International Stroke Journal (PMID number: 25777837).**

2. **Is acute reperfusion therapy safe in acute ischemic stroke patients who harbor unruptured intracranial aneurysm?** Ashkan Mowla,MD; **Karanbir Singh**, MD; Sandhya Mehla,MBBS; Mohammad K. Ahmed,MBBS; Peyman Shirani,MD; Chandan Krishna, MD; Robert N. Sawyer,MD; Marilou Ching, MD; Adnan H. Siddiqui, MD, PhD; Elad I. Levy, MD; Kenneth V. Snyder, M.D. PhD; Annmarie Crumlish, CCRC; L.N Hopkins, MD. A retrospective study looking into the safety of intravenous thrombolysis in stroke patients with cerebral aneurysms which currently is an exclusion criterion for thrombolysis. We reported 44 cerebral aneurysms exposed to intravenous thrombolysis which is the largest study on this subject in literature. **Published in International Stroke Journal (PMID: 26377963).**
3. **Safety of Intravenous Thrombolysis for Acute Ischemic Stroke in Patients with Pre-Existing Multiple Intracranial Aneurysms.** Ashkan Mowla, MD; Sandhya Mehla, MBBS; **Karanbir Singh**, MBBS; Mohammad K. Ahmed, MBBS; Peyman Shirani,MD; Chandan Krishna, MD; Robert N. Sawyer,MD; Marilou Ching, MD; Adnan H. Siddiqui, MD, PhD; Elad I. Levy, MD; Kenneth V. Snyder, M.D. PhD; Annmarie Crumlish, CCRC; L.N Hopkins, MD. **Abstract presented at Neurocritical Care Society meeting 2014 in Seattle, published in conference journal.**
4. **Time is Brain: Quality improvement project.** **Karanbir Singh** MBBS, Deeya Gaindh MD, Pooja Sofat MD, Waqas Masud MBBS, Nourledein Abdelhamid MD, Ghasan Ahmad MBBS, Nicholas J Silvestri MD. Project aimed at minimizing the door to needle time for intravenous thrombolysis at Gates Vascular Institute. Collected data for all tPA's between June 2012 to June 2013 and looked into the reason for delays in administering tPA. 45% delays were because of inability to contact family members. Our project aimed at educating the EMS about importance of time in stroke, and telling them to bring essential information like cellphone number of a family member or witness when bringing a stroke patient in. We made reminder cards which were handed over to EMS with essential information needed for stroke patients. I gave presentations and lectures to EMS on importance of time in stroke and how they can help in minimizing the time to tPA. Received quality improvement award from University at Buffalo Graduate Medical Education (UBGME) for the project. **Presented at American Academy of Neurology Meeting 2015.**
5. **Rate, Clinical features, Safety profile and Outcome of Intravenous Thrombolysis for Acute Ischemic Stroke in Patients with Negative Brain Imaging.** Haris Kamal, MD; Ashkan Mowla, MD; Sandhya Mehla, MD; Peyman Shirani, MD; **Karanbir Singh**, MBBS; Salman Farooq, MD; Annmarie Crumlish, CCRC; Marilou Ching, MD, MPH; Robert N. Sawyer, MD. Retrospective study aimed at finding the outcome of intravenous thrombolysis in stroke mimics. **Abstract presented as oral presentation at International Stroke Conference 2015 in Nashville and published in conference journal.**
6. **Clinical and Laboratory factors predisposing to hemorrhagic conversion of ischemic stroke after thrombolysis.** Haris Kamal, MD; Ashkan Mowla, MD; Sandhya Mehla, MD; Peyman Shirani, MD; **Karanbir Singh**, MBBS; Salman Farooq, MD; Annmarie

Crumlish, CCRC; Marilou Ching, MD, MPH; Robert N. Sawyer, MD. Ongoing retrospective study looking at the safety of intravenous thrombolysis in poorly controlled diabetics. Abstract Submitted for presentation at American Academy of Neurology meeting 2015, awaiting acceptance.

7. **Is Platelet Reponse Testing Associated with Severity of Recurrent Strokes.** Haris Kamal, MD; Karanbir Singh, MBBS; Ghulam Mustafa, MBBS; Ping Li, MD; Rabia Ghazi, MD; Aaron McMurtry; Bijal Mehta, MD. Ongoing retrospective study looking into relationship of responsiveness to antiplatelets and stroke severity.

#### **Review Articles:**

8. **Neuroimaging of spinal cord disorders:** Karanbir Singh, MD; Laslo Mechtler, MD; Joshua Klein, MD. **Published in Neurology CONTINUUM October 2016.**
9. **Neuroimaging of Pain Syndromes due to Skull Base Tumors:** Karanbir Singh, MD; Thomas Pfiffner, MD; Laszlo Mechtler, MD. A review article outlining the skull base pain syndromes and the role of Neuroimaging, with the latest advances in neuroimaging techniques. Submitted for Publication in Current Pain and Headache Reports.

#### **Case Reports:**

10. **Posterior Reversible Encephalopathy Syndrome (PRES) secondary to blood transfusion:** Karanbir Singh MBBS, Rajesh Gupta MD, Haris Kamal MD, Nicholas Silvestri MD, Gil Wolfe MD. Reported a case of a 36 year old female presenting with PRES, 5 days after of blood transfusion. Only 3 such cases worldwide have previously been reported. Presented at Society of Critical Care Medicine meeting 2015 in Phoenix. Abstract published in conference journal. **Published in Journal of Clinical Neuroscience (PMID: 25542590).**
11. **Diagnostic clue from brain MRI in a 91 year old with Amyotrophic Lateral Sclerosis (ALS).** Karanbir Singh MBBS, Haris Kamal MD, Nicholas J Silvestri MD. Reported a case of a 91 year old woman with ALS presenting as T2 hyperintensities along the corticospinal tracts on brain MRI. Presented at University at Buffalo Research Day 2014, and American Society of Neuroimaging meeting 2015 in Phoenix. Abstract published in conference journal. **Manuscript published in Open Journal of Clinical and Medical Case Reports.**
12. **Idiopathic Superior Ophthalmic Vein Thrombosis:** Karanbir Singh, MBBS; Deeya Gaindh, MD; Ghulam Mustafa, MD; Haris Kamal, MD; Ashkan Mowla, MD. Presented at American Academy of Neurology Meeting 2015, abstract published in conference journal.
13. **Acute Infarct in Pontine Medial Longitudinal Fasciculus (MLF) Misdiagnosed as Atypical Miller Fischer Syndrome.** Haris Kamal, MD; Ashkan Mowla, MD; Peyman

Shirani, MD; **Karanbir Singh**, MD; Mahmoud AbdelRazek, MD; Robert Sawyer Jr, MD. Presented at American Society of Neuroimaging meeting 2015, abstract published in conference journal.

14. **Balo's Concentric Sclerosis with Extensive MRI Brain Lesions and minimal symptoms.** Mahmoud AbdelRazek, MD; Haris Kamal, MD; **Karanbir Singh**, MD; Salman Farooq, MD; Ping Li, MD. Presented at American Society of Neuroimaging meeting 2015, abstract published in conference journal.
15. **Unique Case of HSV Encephalitis Leading to Post-infectious Diffuse Spinal Arachnoiditis.** Haris Kamal, MD; **Karanbir Singh**, MBBS; Nicholas J. Silvestri, MD, Mahmoud AbdelRazek, MD; Bijal K Mehta, MD. Presented at American Society of Neuroimaging meeting 2015, abstract published in conference journal.
16. **Safety of Intravenous Thrombolysis for Stroke in a Patient With Multiple Intracranial Neoplasm.** Ashkan Mowla, Navdeep Singh Lail, Karanbir Singh, Sandhya Mehla, Peyman Shirani. **Published in Archives of Neuroscience.**

#### **Presentations at Scientific Meetings:**

1. **Safety of Intravenous Thrombolysis for Acute Ischemic Stroke in Patients with Pre-Existing Intracranial Neoplasms.** Karanbir Singh, MBBS; Ashkan Mowla, MD; Sandhya Mehla, MBBS; Mohammad K. Ahmed, MBBS; Peyman Shirani, MD; Robert N. Sawyer, MD; Haris Kamal, MD; Annemarie Crumlish, CCRC; Marilou Ching, MD, MPH, FACP. **Presented at the Neurocritical Care Society meeting 2014 in Seattle.** Abstract Published in conference journal.
2. **Safety of Intravenous Thrombolysis for Acute Ischemic Stroke in Patients with Pre-Existing Multiple Intracranial Aneurysms.** Ashkan Mowla, MD; Sandhya Mehla, MBBS; Karanbir Singh, MBBS; Mohammad K. Ahmed, MBBS; Peyman Shirani, MD; Chandan Krishna, MD; Robert N. Sawyer, MD; Marilou Ching, MD; Adnan H. Siddiqui, MD, PhD; Elad I. Levy, MD; Kenneth V. Snyder, M.D. PhD; Annmarie Crumlish, CCRC; L.N Hopkins, MD. **Presented at Neurocritical Care Society meeting 2014 in Seattle.** Abstract published in conference journal.
3. **Exceptional MRI findings in ALS** Karanbir Singh MBBS, Haris Kamal MD, Nicholas J Silvestri MD. Reported a case of a 91 year old woman with ALS presenting as T2 hyperintensities along the corticospinal tracts on brain MRI. **Presented at University at Buffalo Research Day 2014, and American Society of Neuroimaging meeting 2015 in Phoenix.** Abstract published in conference journal.
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