Seton Medical Center
Primary Stroke Center

Case Study #1

- Crescendo TIAs (Transient Ischemic Attacks) vs. acute stroke in evolution (chance that stroke could become “full-blown stroke”)
- 57 yr. old black female with history of hypertension, history of smoking, experienced severe numbness and weakness of left face and left upper and lower extremity while at home, lasting for approximately 20 minutes. Her family drove her to Seton Medical Center, a Primary Stroke Center. V/S: 92 pulse, blood pressure 194/114. Time last known well (LKW) was 9:57 a.m. She arrived in ED at 10:17. She may have arrived would sooner if EMS had been called. *
- The admitting CT scan showed no acute intracranial hemorrhage, mass lesion or infarct. MRI did not show acute infarct but did show small vessel ischemic disease .
- Because of her presenting recurring symptoms she was diagnosed initially with crescendo TIA (escalating symptoms) vs acute stroke in evolution. She was at risk for possible exacerbation of her symptoms and increased neurological deficits, t-PA was discussed with the patient including risks and benefits. She was within the 3 hr. window of time last know well and IV t-PA was discussed and she agreed that t-PA be given.
- She was triaged in the ED at 10:11 a.m and received T-PA at 11:45. At 12:49 she was able to move all extremities, speech was clear, no lower extremity numbness. NIH stroke scale was 0.

*This was a very interesting case as the patient presented to the ED with slurred speech, left facial droop and marked weakness of left upper and lower extremities with NIH stroke scale of 12 out of 42. Symptoms lasted for 20 minutes then spontaneously partially resolved, NIH stroke scale of 4.

Her symptoms recurred again as she was being seen by our neurologist with sudden left sided facial droop, slurred speech and marked weakness in her upper and lower left extremity (NIH stroke scale of 12 out of 42) 15-20 minutes later she partially resolved her left sided symptoms and her NIH was again scored at a 4. The changes occurred 6 times in the ED. **

She was transferred to ICU post t-PA for a 1 to 1 (nurse to patient ratio) for 4 hours for observation. Her NIH stroke scale remained at a 0 through the rest of her hospital stay and she went home 2 days later, promising to take her meds for high blood pressure and high cholesterol, to stop smoking and praising her good luck in coming to Seton, thanking the neurologist and staff for “giving me my life back.” I did call her last week and she had lost 70 lbs. and was “feeling like a new person.”

Case Study #2

- Ischemic Stroke/Carotid Stenosis
- 67 yr. old white male with history of hypertension, 2 pack a day smoking habit and chronic alcohol use came in via EMS ½ hour after symptoms presented. V/S: HR at 88, resp.at 17, B/P: 152/102. *
- He presented in the ED with severe right sided weakness and “Code Stroke” was called. NIH stroke scale: 10. Last time known well: 11:50 a.m.
- CT scan of the brain showed no hemorrhage but did show that patient had a dense left middle cerebral artery (MCA) occlusion. A follow up CT angiogram (a contrast dye injection that visualizes arteries and veins of the head and neck) showed a clot involving the left middle cerebral artery (MCA) and stenosis measuring 73% closure in the right internal carotid artery (ICA) and near occlusive stenosis, secondary to calcified plaque, involving the left internal carotid artery (ICA) **
- As he was a candidate and was within the 3 hr. window, IV t-PA was discussed with patient and he agreed to proceed. IV t-PA was given and the left middle cerebal artery (MCA) opened, blood flow resumed and his symptoms resolved. Last known well at 11:50, ED triage time at 12:16, IV t-PA given at 14:19. Marked improvement of systems at 14:40. NIH stroke scale of 0.***

He had been sitting on a stool talking with a friend, when he had a sudden change in his level of consciousness, slurred speech and right sided weakness. He fell backwards and was caught from falling by a friend who called 9-1-1.

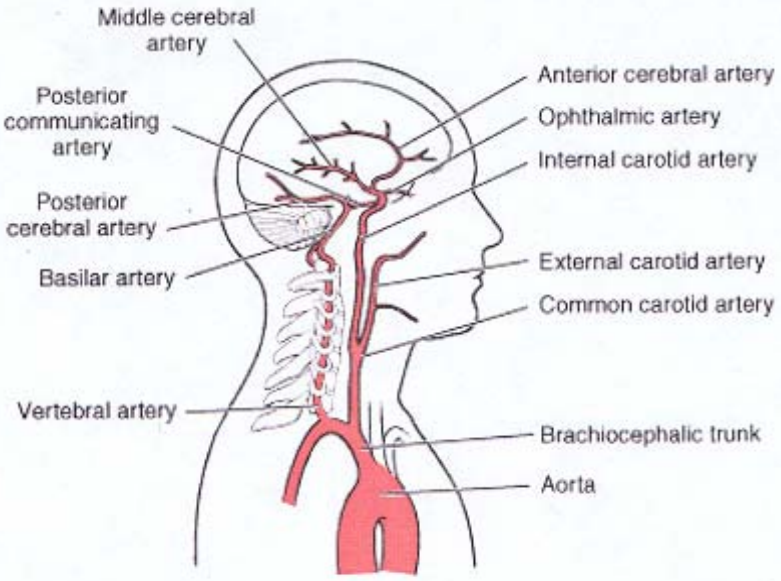
Intra arterial t-PA (t-PA given directly at clot location) was thought to be too risky due to the hard plaque present that might cause a risk of further dispersion of emboli. *

***His NIH stroke scale remained at 0 during the rest of the hospital stay.

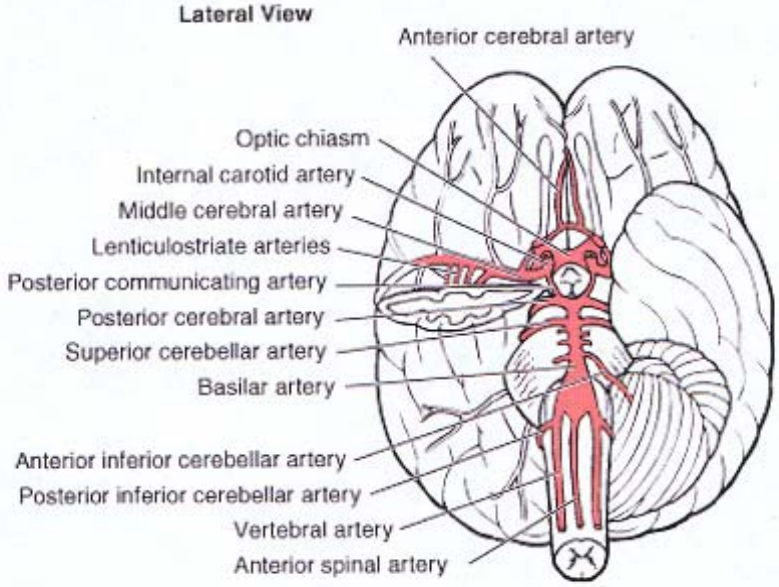
Patient was counseled about his smoking and alcohol use, agreed to stop smoking and actually was our poster child as an example of a t-PA success story in a recent issue of the San Mateo Times. Because he received IV t-PA it was decided to wait 2 weeks before a carotid endarterectomy was done which was performed successfully in-patient on 9/23/10.

Thanks to all of our pre-hospital personnel and the collaboration of all of our ED, radiology and telemetry staff, Seton Medical Center received the Gold Plus award for stroke from the American Heart/American Stroke Association for 2010.

Thank you!



Lateral View



Inferior View