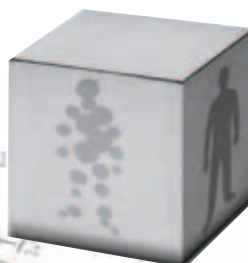


# Case Report

STROKE: IV and IA



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**PATIENT HISTORY**

68 yo M with hx of p/w left hemiparesis.

Last Known time was 23:30 9/8/11 when pt's wife went to bed and he was watching TV.

At 02:30 on 9/9 pt was noted to have a fall out of bed, was not moving left side. Was taken to near by hospital at 02:40. VS 146/68, 84. At 02:40, pt was noted to have NIHSS of 21 by outside hospital (2 q's, 1 gaze, 1 hemianopsia, 2 face, 4 L arm, 4 L leg, 1 ataxia, 2 sensory, 2 aphasia, 1 dysarthria, 1 extinction). CT reportedly showed hyperdense MCA sign on Rt. TPA (8.8 mg bolus, 72 mg drip) given 04:10. CTA after TPA reportedly showed persistent occlusion of the Rt MCA. NIHSS 16 at 05:25 now with trace grip in L hand, able to lift L leg.

Call to UCLA Stroke team at 05:55. Arrival at UCLA at 08:15, at which time NIHSS 7 ( 2 face 3 L arm 1 L leg, 1 dysarthria). MRI at 08:33 showed restricted diffusion in the Rt putamen, caudate, insula, anterior inferior parietal lobe and underlying corona radiata. There was FLAIR hyperintensity in the right striatum and corona radiata. FLAIR intravascular hyperintensities indicated slow flow in the right MCA territory. GRE did not show clear evidence of hemorrhage, however there was a small 1 cm area of susceptibility artifact in the region of the body of the caudate.

**IMAGING FINDING**

MRA showed paucity of branches in the parietal branch of the right MCA.

Perfusion imaging showed moderately delayed TTP in the posterior division of the MCA with significant perfusion/diffusion mismatch. Infarcted volume 10.03cc/ hypoperfusion volume 64.56cc Mismatch ratio 6.4 64% penumbra by OLEA.

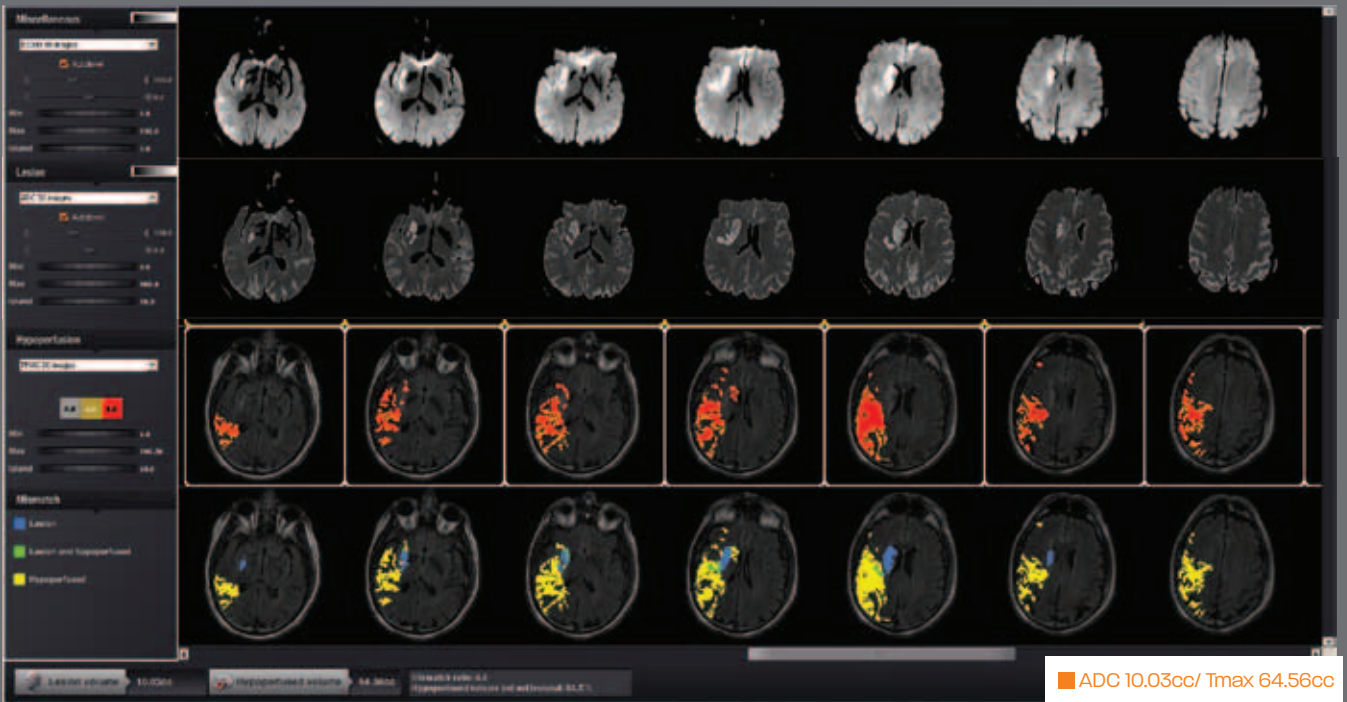
NIHSS at 09:30 was 5 (2 face, 2 L arm, 1 dysarthria). Pt was taken to Angio at 09:40.

Groin puncture at 09:58. Angio showed rt posterior division M2 occlusion. On-clot time was 10:25. Penumbra device was deployed at 10:30 and suction for 1-2 min was performed. No significant recanalization after the first suction. At 10:35, second suction was performed with penumbra for approx 1 min. Selective angiogram after penumbra showed distal embolization of clot material with TICI 2A recanalization.

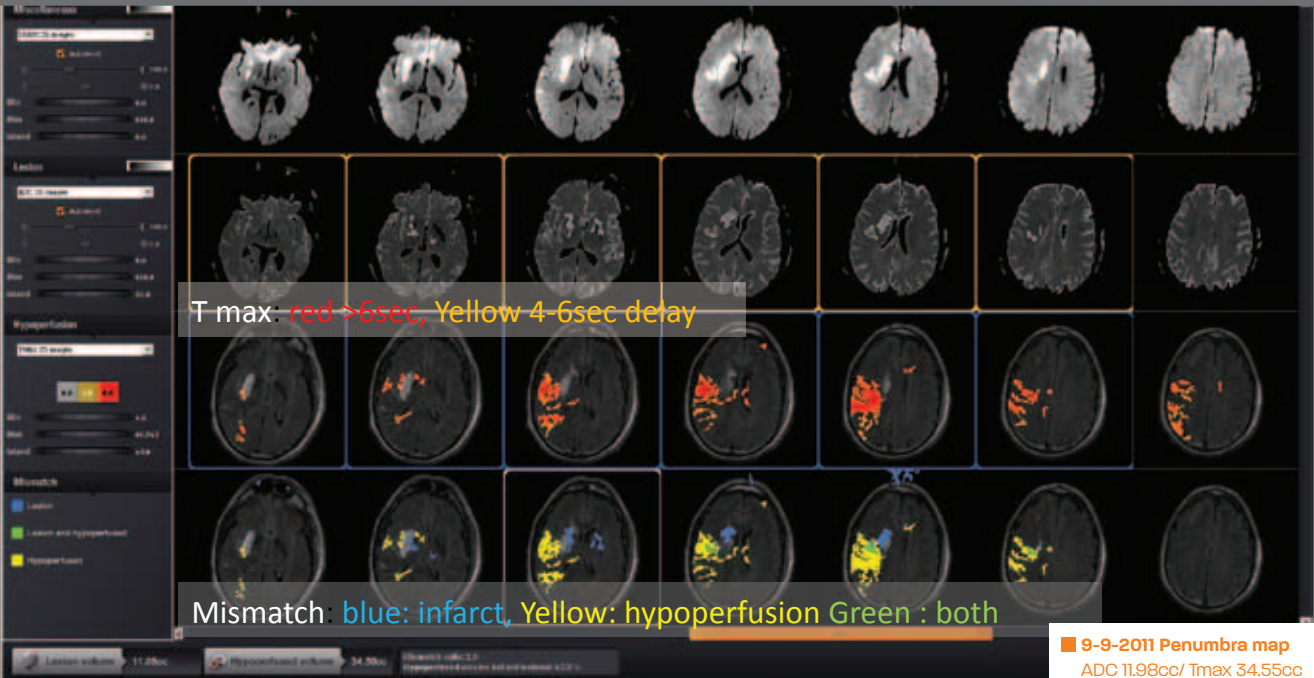
Procedure was terminated a 10:50. Pt was taken to neuro ICU for continued care.

Post recanalization follow up MRI 9/9/2011 showed ADC volume 6cc and improvement of the Tmax area.





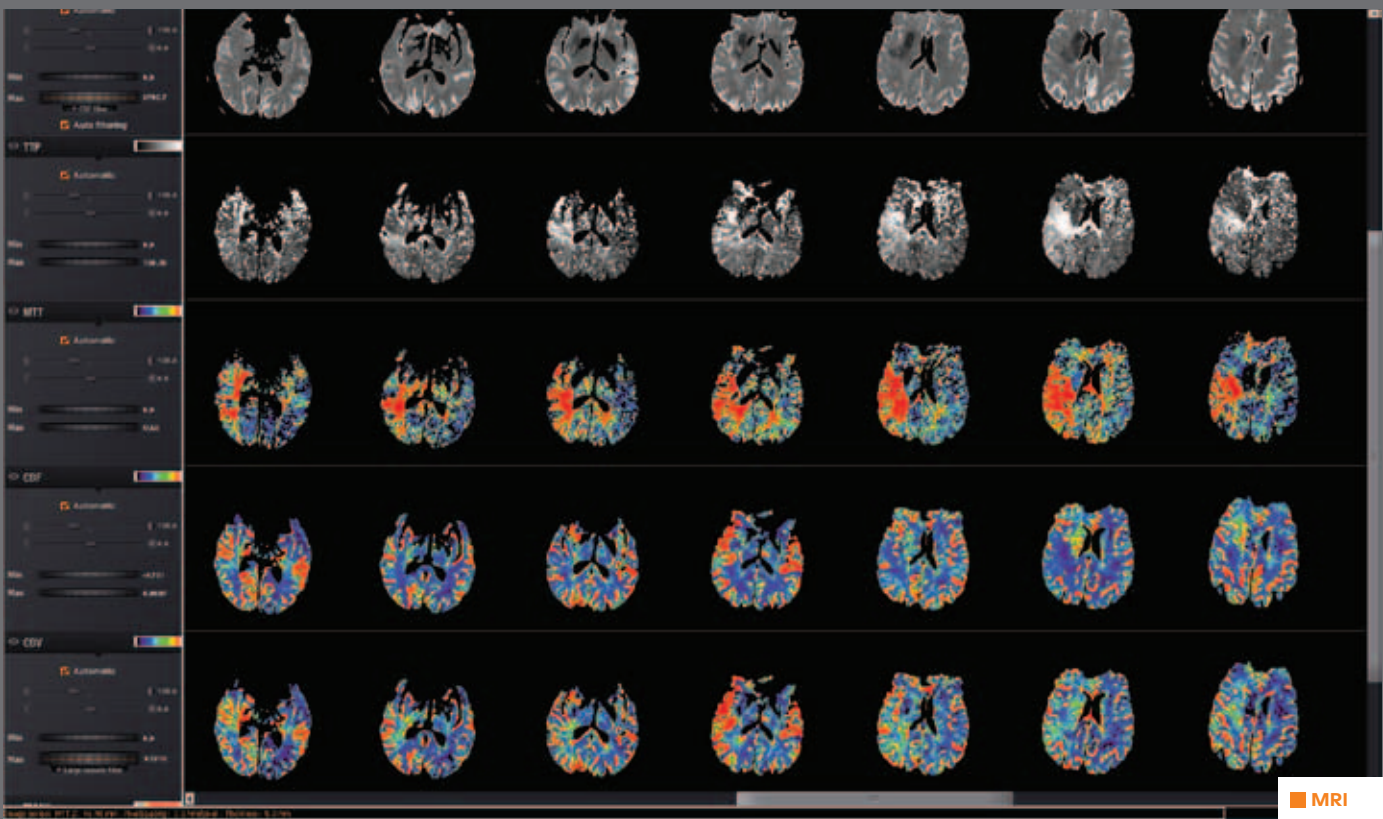
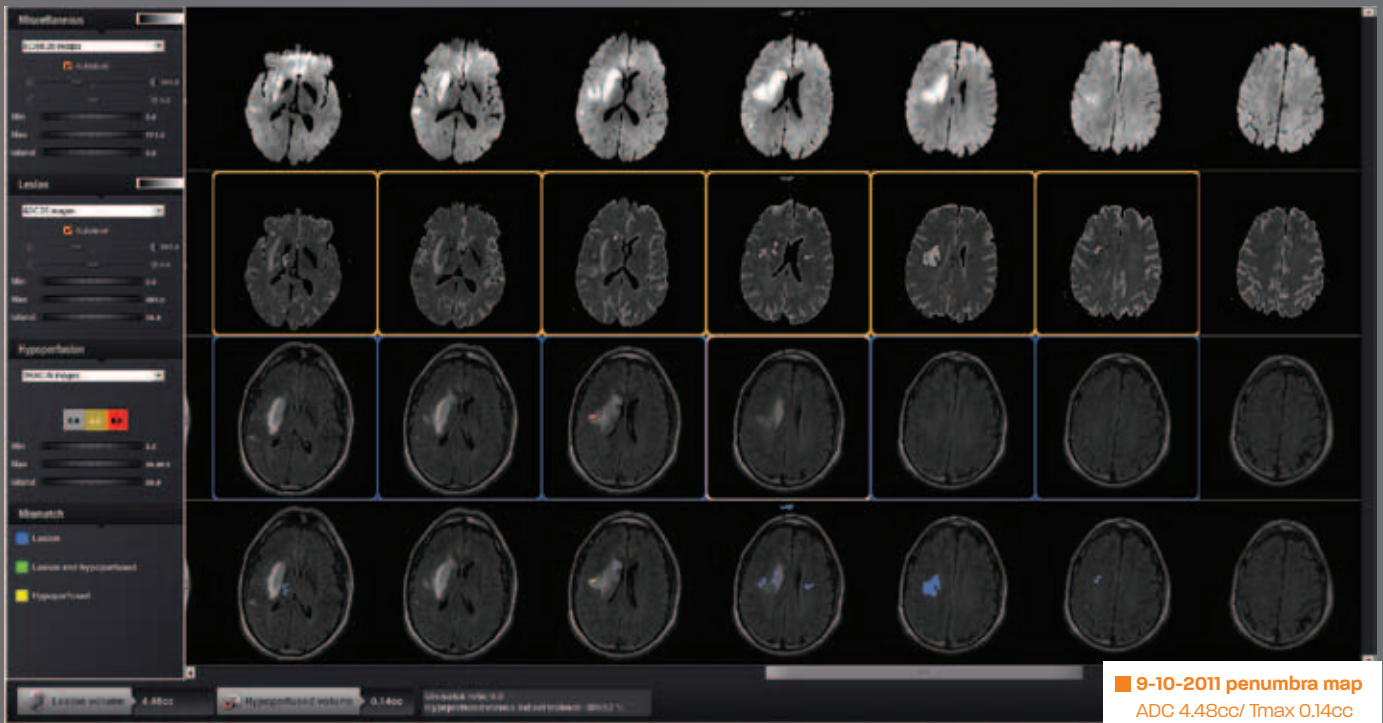
ADC 10.03cc/ Tmax 64.56cc

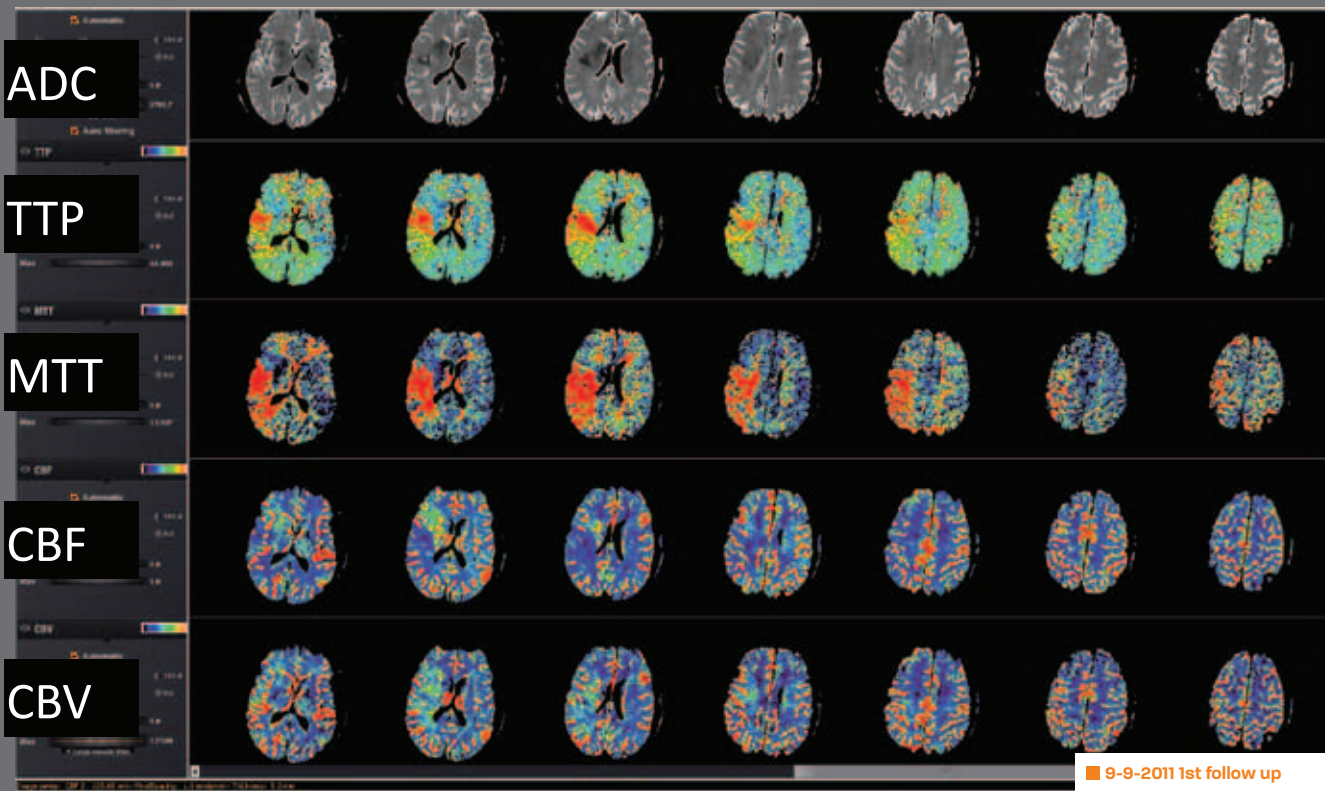
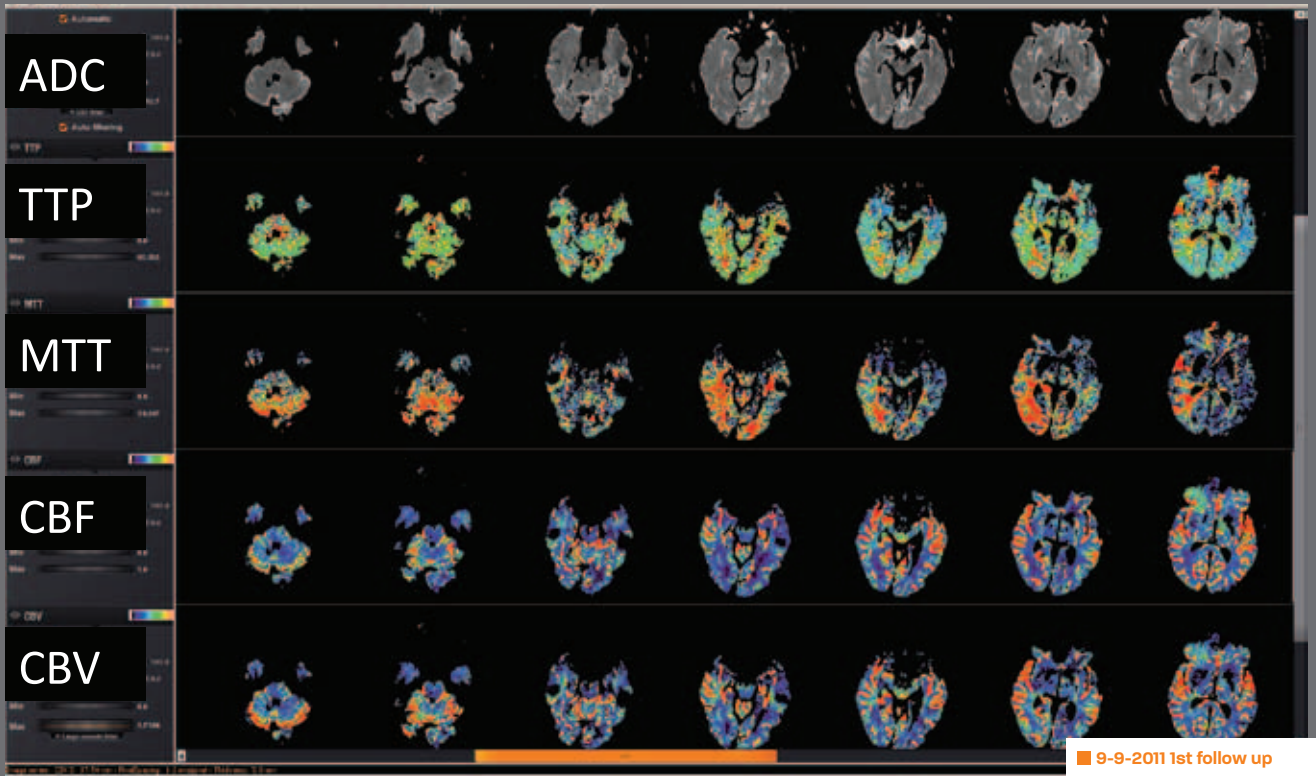


T max: red >6sec, Yellow 4-6sec delay

Mismatch: blue: infarct, Yellow: hypoperfusion Green : both

9-9-2011 Penumbra map  
ADC 11.98cc/ Tmax 34.55cc

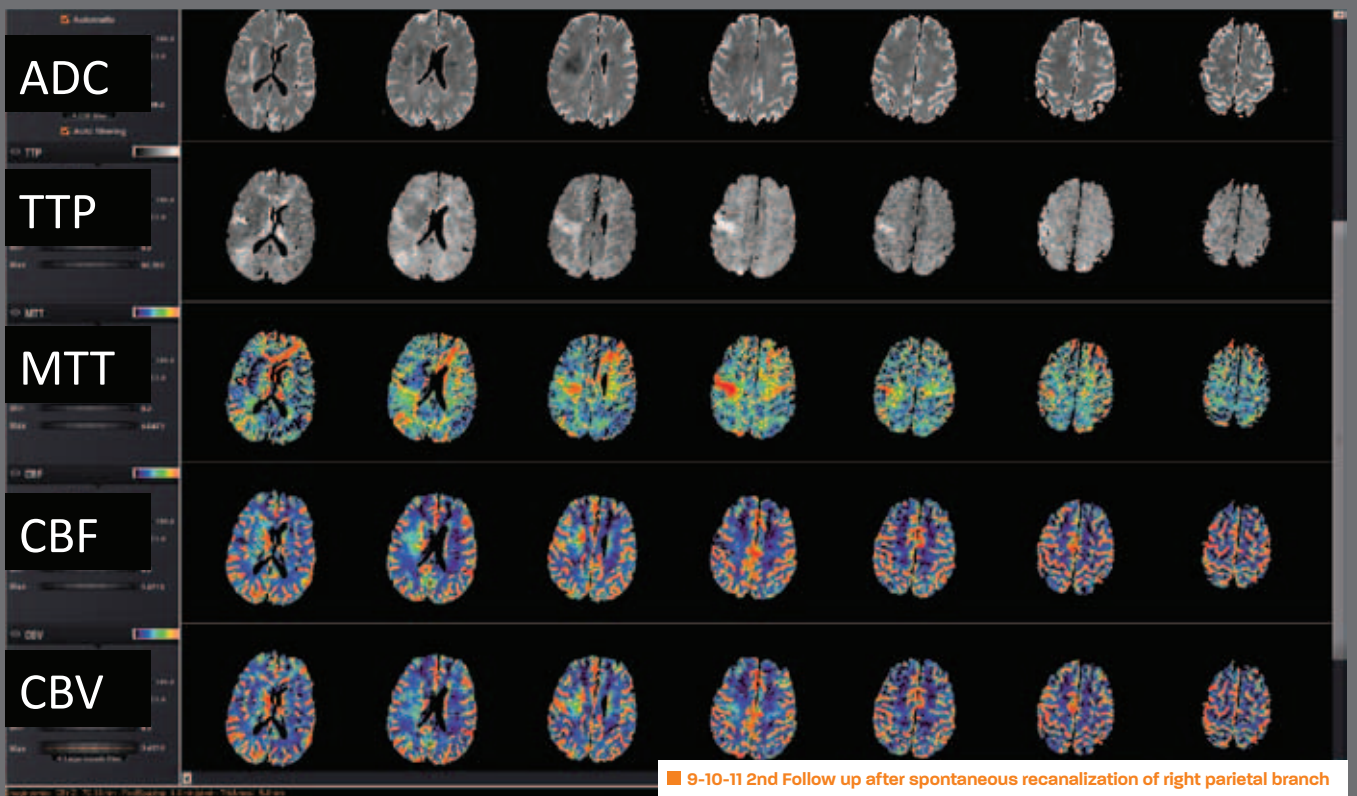
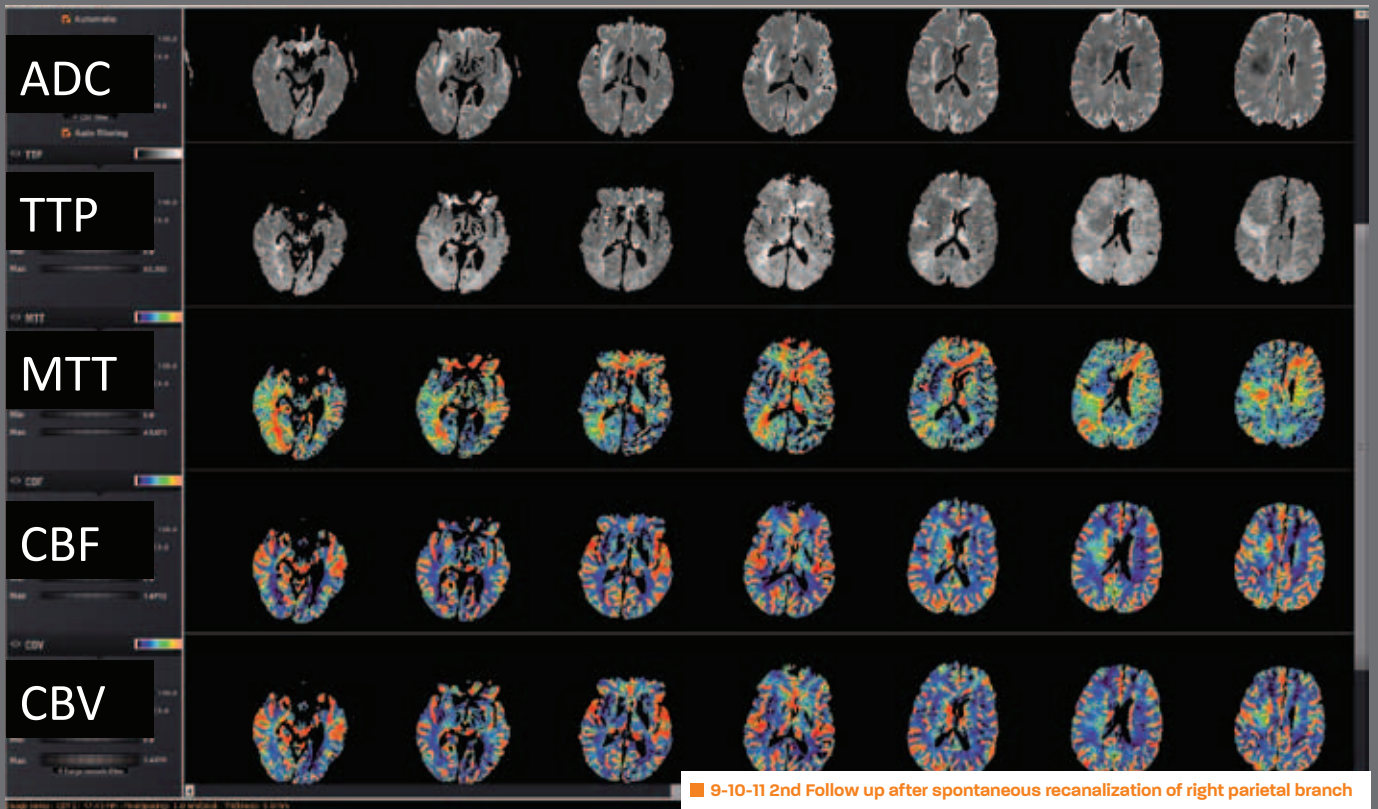


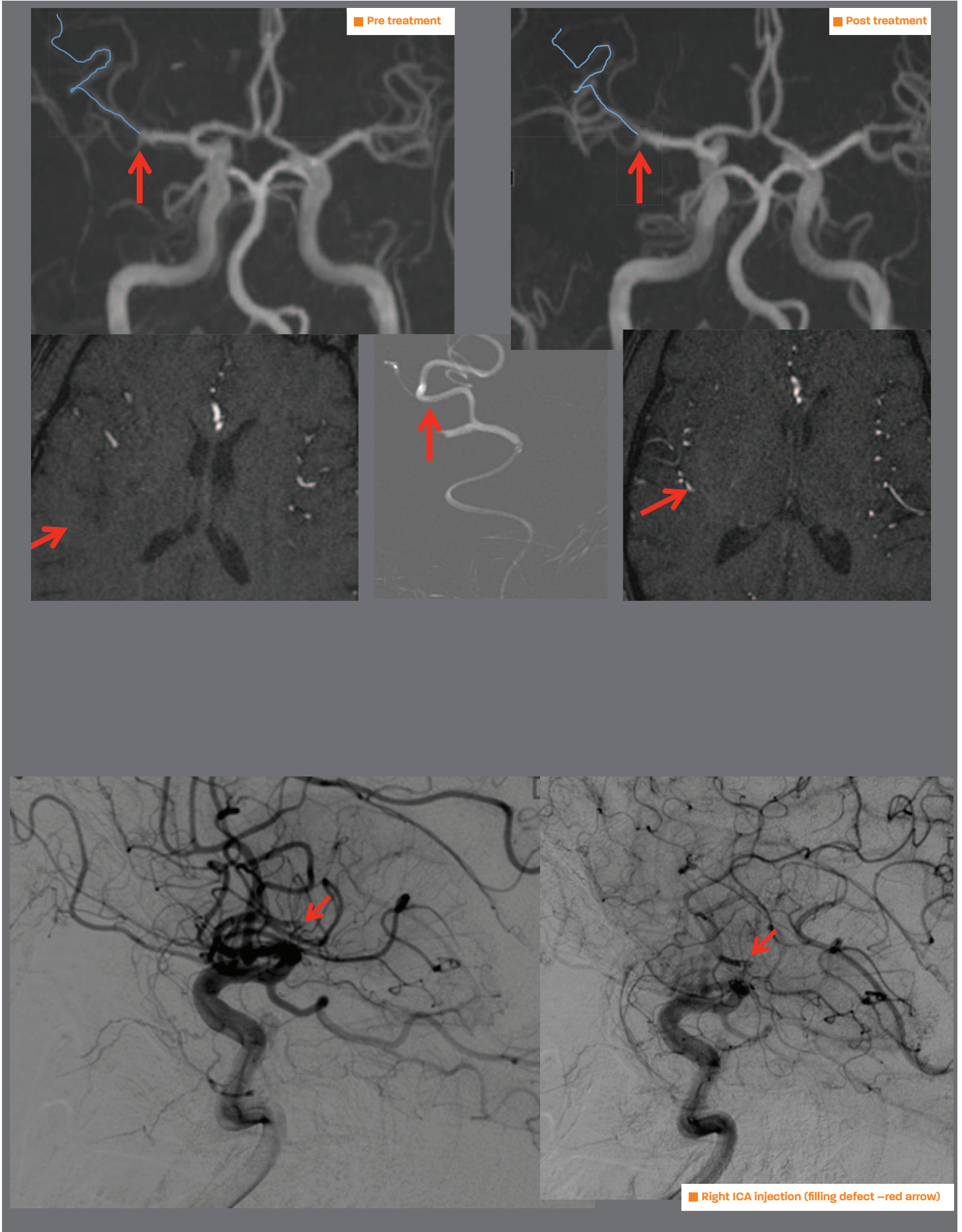


Courtesy of Noriko Salamon, MD, PhD, Dept. of Radiology,  
UCLA, Los Angeles, CA, USA

OLEA MEDICAL : improved diagnosis for life

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