**Case Report**

- A 76-year-old woman presented to the hospital for 3 days of left-sided weakness.
- Symptoms, which began while she was at her retirement home, included left-sided facial droop, slurred speech, and inability to raise her left arm. Neither she nor family recalled similar previous symptoms, or inciting factors.
- The patient was somnolent but arousable. At the ED earlier, doses of IM naloxone had temporarily improved her mental status. Nursing home staff reported she had regularly been taking 50 mg oral tramadol every 6 hours for fall-related shoulder and leg pain.
- Other conditions included well-managed ESRD on dialysis, hypertension, hyperlipidemia, and type II diabetes.
- Vital signs remained within normal limits. Physical exam was notable for small pupils and lacrimation, and confirmed the patient’s described left-sided weakness.
- Panels showed no notable electrolyte or vitamin abnormalities. Standard urine drug screen (UDS) was negative. However, urine studies revealed cloudy urine with +3 leukocyte esterase, +2 bacteria, and numerous WBCs.

**Discussion (cont.)**

- Both CT and MRI without contrast showed brain findings consistent with a large, old right middle cerebral artery (RMCA) infarct, but no acute abnormalities (Figure 1). Previous head imaging was not available for comparison.
- Assessment was concerning for post-stroke recrudescence due to tramadol use and, to a lesser extent, UTI. Tramadol was discontinued and replaced with IV ceftriaxone, later converted to oral amoxicillin-clavulanate.
- Further discussion with nursing home staff suggested the patient may have been taking extra, non-scheduled tramadol prior to onset of symptoms.
- 72 hours into her stay, and post-discontinuation of tramadol, the patient’s weakness symptoms largely resolved. She was discharged and driven to a nearby skilled nursing facility where she completed her recovery.

**Discussion**

Acute symptom onset, mental status improvement with naloxone, prior increase in tramadol use, old brain infarcts found on imaging, and marked improvement post-discontinuation all supported tramadol’s predominant role in the patient’s PSR.

**References**