

## **Successful stroke thrombolysis beyond guidelines: A case series**

### **ABSTRACT**

Intravenous (IV) thrombolysis is a safe and effective treatment for acute ischemic stroke. The therapeutic benefit is not extended to more than 4.5 hours in many patients due to the protocol's time window restriction. Here, we reported two acute stroke cases with a moderate National Institutes of Health Stroke Scale (NIHSS) and onset greater than 4.5 hours that were successfully thrombolysed with intravenous recombinant tissue plasminogen activator (tPA) - low-dose Tenecteplase (TNK). The decision to thrombolysed both patients were based on Magnetic Resonance Imaging (MRI) Diffusion-weighted imaging (DWI)-Fluid Attenuation Inversion Recovery (FLAIR) mismatch – tissue basis rather than a time window, and this resulted in a good neurological recovery with a significant improvement in functional Modified Rankin Score (MRS) to zero at 90 days post stroke regardless of the stroke aetiology. In summary, Intravenous thrombolysis in acute ischemic stroke outside the therapeutic window but with significant penumbra based on MRI DWI-FLAIR tissue mismatch resulted in a remarkable neurological recovery after 90 days.