

Rivaroxaban

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Lack of efficacy: case report

An 89-year-old man exhibited lack of efficacy following anticoagulant therapy with rivaroxaban.

The man presented with a 5-day history of worsening cough and dyspnoea. His relevant history comprised of ischaemic heart disease, hypertension, chronic kidney disease stage 3, permanent pacemaker implantation for complete heart block and atrial fibrillation. It was reported that he was taking long-term rivaroxaban [*route and dosage not stated*] for systemic embolism and stroke prophylaxis. He was admitted to the hospital due to hypoxia. Consequently, reverse transcriptase viral PCR confirmed COVID-19 infection. Admission blood testing revealed elevated CRP and coagulation studies showed prolonged values (activated partial thromboplastin time 31.7 seconds, prothrombin time 14.4 seconds) because of concurrent anticoagulation with rivaroxaban. He was diagnosed with COVID-19 pneumonitis. Subsequently, he started receiving doxycycline for a probable secondary superadded bacterial infection. On Day 4 of hospitalisation, and in spite of an improvement in COVID-19 symptoms, he reported a rapid and dense left-sided hemiplegia with dysarthria with clinical signs of left gaze palsy and left homonymous hemianopia. National Institutes of Health Stroke Scale was noted to be 21. These symptoms were indicative of acute severe stroke. Within 1h of onset of neurological symptoms, CT of the brain revealed a region of low attenuation in the right basal ganglia and high density in the right M1 segment of the middle cerebral artery concordant with an acute infarct because of large-vessel occlusion. Subsequently, CT angiography was requested to assess a potential target for mechanical thrombectomy. It revealed an extensive thrombus occluding the right cervical internal carotid artery and a T occlusion affecting the right anterior and middle cerebral arteries. He developed large-vessel acute thromboembolic stroke in spite of concurrent therapeutic anticoagulation (lack of efficacy). He was not a candidate for thrombolytic therapy because of concurrent anticoagulation with rivaroxaban. Despite maximal ward-based medical treatment, his condition worsened. Eventually, he passed away after 5 days.

Shoukry A, et al. Large-vessel thrombotic stroke despite concurrent therapeutic anticoagulation in COVID-19-positive patient. *Oxford Medical Case Reports* 2020: 389-391, No. 11, Nov 2020. Available from: URL: <http://doi.org/10.1093/omcr/omaa096> 803542595