

## Multiple drugs

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**Lack of drug effect: 3 case reports**

In a case series of 3 patients, all three patients (two men and a woman) aged 56-75 years were described, they exhibited a lack of drug effect during treatment with heparin, aspirin, apixaban or clopidogrel for carotid atherothrombosis and ischaemic strokes [*not all routes stated*].

Case 1: A 56-year-old man presented to a hospital with aphasia and right hemiparesis, he was also experiencing fever, chills, cough and dyspnoea. His medical history was significant for hypertension and diabetes mellitus and he had been receiving aspirin earlier. Subsequently, his CT angiography demonstrated non-occlusive thrombus adherent to the left distal common carotid artery and carotid bifurcation of the head and neck, along with cortical acute ischaemic strokes ipsilateral to the carotid lesion. Also, the RT-PCR test of the nasal swab was positive for COVID-19. Subsequently, he started receiving IV heparin [unfractionated heparin] drip, however, his thrombus did not resolve. Therefore, he underwent open thrombectomy and carotid endarterectomy.

Case 2: A 64-year-old woman presented to a hospital with hemiparesis and left neglect. Initially, she had lethargy and it resolved. Also, she was experiencing hypoxia, confusion, generalized weakness as symptoms of COVID-19 pneumonia. Her medical history was significant for current smoker, hypertension and diabetes mellitus. Her prior antithrombotic therapy included aspirin and enoxaparin-sodium [enoxaparin]. She was also on lisinopril and atorvastatin. Subsequently, her CT angiography showed non-occlusive thrombus adherent to the right distal common carotid artery and carotid bifurcation of the head and neck, along with cortical acute ischaemic strokes ipsilateral to the carotid lesion. Also, her prothrombin time had increased to 17 sec. Her RT-PCR of the nasal swab was negative, but she was positive for the SARS-CoV-2 antibody. She required oxygen supplementation. Thereafter, she started receiving aspirin 81mg a day, apixaban 2.5mg two times a day, and followed by IV heparin drip; however, her thrombus did not resolve. Therefore, she underwent open thrombectomy and carotid endarterectomy.

Case 3: A 75-year-old man presented to a hospital with hypoxia and the right face and hand weakness. His medical history was significant for hyperlipidemia, iliac aneurysm and ex-smoker (20 packs a year) and he had been receiving aspirin earlier. He was also on atorvastatin. Subsequently, his CT angiography showed nonocclusive thrombus adherent to the left distal common carotid artery and carotid bifurcation of the head and neck, along with cortical acute ischaemic strokes ipsilateral to the carotid lesion. Also, his activated partial thromboplastin time was elevated to 51.2 sec, and his RT-PCR of the nasal swab was positive for COVID-19. He required oxygen support. Initially, he received aspirin 81 mg, clopidogrel 75 mg a day, apixaban 2.5mg two times a day and followed by IV heparin drip; however, his thrombus did not resolve. Therefore, he underwent open thrombectomy and carotid endarterectomy.

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