A 64-year-old male presented for evaluation of episodes of monocular vision loss in his right eye lasting 20 seconds. He had undergone biological aortic valve implant surgery recently and took rivaroxaban, 20 mg, daily. The patient reported experiencing a new episode of inferior altitudinal visual field defect approximately 10 seconds before undergoing macula- centered imaging, which revealed a 550-μm-long whitish embolus in the superior temporal arteriole, with a pale appearance of the retina distal to the embolus, presumably from inner retinal ischemia. A disc-centered image, 1 minute later, revealed distal migration of the embolus. The embolus no longer was apparent 30 minutes after the initial image, but the pale retinal appearance persisted. Although it is unknown if the inner retinal edema was due to the embolus visualized or previous emboli that no longer were apparent, the case shows how quickly an embolus can move distally.