



## Case Report

# An Unusual Cause of Transient Ischaemic Attack Easy to Discuss the Benefit from the Hindsight

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## Case Report

56-year-old accountant just got off a 13 hours flight from Europe presented with Transient Ischaemic Attack with right sided upper limb weakness, dysphasia and half an hour of confusion.

His presentation started on dropping his key on the front door and becoming confused upon arrival to his own front door. He was later on expressing right sided weakness and sitting in front of his front door for half an hour before his wife taking him to our clinic for an urgent appointment. By this stage, he had almost made a full recovery in keeping with our clinical diagnosis of Transient Ischaemic Attack (TIA), namely min stroke characterized with temporary blockage of blood supply to the brain.

Stroke or TIA can occur at any age although the majority occurs over the age of 65 with one quarter of strokes/TIAs occur in people under the age of 65. Common causes in this population include cardio embolism, hematologic disorders, substance abuse, trauma, dissections, connective tissue disorders and migraine [1]. He was immediately referred to the stroke unit in the private hospital after the urgent GP review during which time he was fully recovered without focal neurological symptoms or signs.

MRI scan of the brain with flair imaging confirmed acute TIA with multiple small vessel embolic infarcts in the middle cerebral arterial territories. Aspirin and Clopidogrel were commenced to prevent further embolic stroke. Part of the TIA diagnostic workup including Carotid Doppler, echocardiogram and EEG were unremarkable except queried a small and insignificant patent foramen ovale on the transthoracic echocardiogram. He was subsequently discharged to GP for ongoing monitor and discussion about possible further investigation regarding the patent foramen ovale.

The following day after his discharge, he represented to me with bilateral painful calves predominantly on the right with swelling and tender on palpation. The bilateral calves pain

occurred on the day before he boarded the return plane which he thought the pain and swelling from the long travel. My clinical examination pointed towards a possible below-knee painful deep vein thrombosis and Doppler ultrasound did confirm DVT with possible extension into right popliteal vein.

I immediately discussed with both the haematologist and neurologist consultants regarding the role of anticoagulation. The current advice is for full anticoagulation of at least three months or even six months to one year depending on the resolution of the DVT. He was commenced on warfarin with regular INR monitor.

As I followed up the small PFO with transesophageal echocardiogram, 1.5cm PFO was identified with small and insignificant right to left shunt. I had a long telephone conversation with the reporting cardiologist to establish the casual relationship between the DVT and the acute cerebral embolic infarct. Paradoxical embolic leading to acute infarct is a very likely differential diagnosis in the absence of other identifiable causes for the acute cerebral infarct with all the exhausted negative investigations.

As we discussed the literature of patent foramen ovale, a patent foramen ovale can occur in up to 27.3% of the general population [2]. Fortunately, we are able to organize a case conference with the cardiologist, patient and family with respect the need to repair the PFO. The patient opted for the septal occluder placement via the less invasive femoral artery approach.

His operation was complicated with failure to properly place the septal occluder and was converted into an open trans-thoracic approach during the operation. He had to be admitted to intensive care unit for 3 days and took him three months to make full recovery with intense rehabilitation instead of two weeks recuperation from the trans-femoral approach.

We were discussing the pros and cons of repairing the PFO because he is required to be on long period of anticoagulation

in terms of the septal occluder. The salient learning point of the case is the prevention of further embolic stroke with combined operational complications and risks of haemorrhagic events as the cost or the sacrifice.

There are always many discussions about these costs or sacrifices in medicine enriching the complexity and the challenge that we face but enjoy the most in our everyday practice.

## References

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