

Acute arterial thrombosis after a long-haul flight

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Vascular thrombosis is a well-documented complication of long-haul flights. Myocardial infarction and deep venous thrombosis are amongst the commonest medical emergencies encountered in commercial air travellers^{1,2} but acute peripheral arterial thrombosis is far less frequent³. Low-dose aspirin has been suggested as prophylaxis against vascular thrombosis in high-risk patients^{1,3}. We report a case in which acute arterial thrombosis developed despite relative anticoagulation with warfarin.

CASE HISTORY

A man age 52 reported a three-day history of pain in the left foot and calf. The pain began suddenly towards the end of a 13-hour night flight from Malaysia to England during which he had remained seated throughout and consumed little fluid except for 6 units of alcohol. One year previously he had undergone aortic valve replacement for aortic stenosis and was taking warfarin. He was a non-smoker with no risk factors for atherosclerotic disease. On examination there were no pulses distal to the left femoral. The left foot was cold but viable with no neurological deficit. An arteriogram showed a short occlusion of the left above-knee popliteal artery with good collateral circulation (Figure 1). The patient proved to be suboptimally anticoagulated, with an international normalized ratio (INR) of 1.6. He was subsequently managed conservatively. An intravenous infusion of heparin was started and continued until the INR was in the 2.5–3.5 range. An echocardiogram showed a normally functioning prosthetic aortic valve and no left ventricular thrombus or vegetations. The symptoms gradually improved on this treatment and he was symptom-free at the six-month follow-up.

COMMENT

Several factors may have contributed to the development of arterial thrombosis in this case. Low cabin humidity,

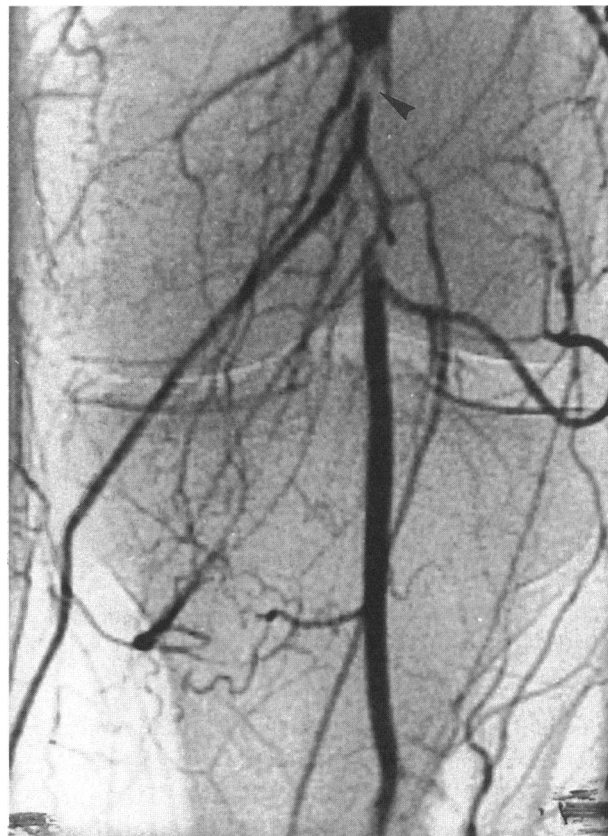


Figure 1 Arteriogram showing short occlusion of the left popliteal artery (arrow) with good collateral circulation and normal distal vessels

consumption of alcohol with inadequate intake of other fluids combined with previous exposure to a hot climate may have led to dehydration which together with prolonged stasis could have caused arterial thrombosis^{1,4}. This occurred despite relative anticoagulation with warfarin and in the absence of any risk factors for atherosclerosis.

The best advice to passengers on long-haul flights, and particularly those travelling in the cramped conditions of the economy class, is therefore to do regular leg exercises, drink plenty of fluids and avoid smoking and alcohol. Clinicians in turn should consider arterial thrombosis, as well as deep venous thrombosis, in the differential diagnosis of leg pain after air flights.

REFERENCES

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