Spontaneous Radial Artery Thrombosis
Recanalised by Intravenous Streptokinase - An Unconventional Successful Approach

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Sir,

Spontaneous radial artery thrombosis have been reported and treated by thrombectomy or by vein grafting using microsurgical techniques. This case of spontaneous radial artery thrombosis recanalised by streptokinase infusion over extended period of 24 hours with achievement of total patency and full functional recovery of hand and digits is being reported. Radial artery thrombosis may be spontaneous or secondary to post procedural complications of transradial access.¹ ²

Spontaneous arterial thrombosis have been reported secondary to malignancy.³ Young adults with spontaneous thrombotic events should be screened for hypercoagulable states. Once the vessel is occluded it cannot be used for future interventions. Angiography, digital subtraction angiography and colour doppler are various tools to confirm diagnosis. Surgical exploration with thrombectomy and replacement of the involved segment by vein grafts is being used to restore blood flow.

A 55 year old non-diabetic, normotensive male with sober habits presented in emergency with acute onset pain in right upper limb which started at the shoulder and descended to elbow and hand over a span of half an hour. He also noticed pins and needle sensation in the hand followed by inability to use his thumb and fingers. Past history was inconclusive and there was no history of transient ischaemic attack, myocardial infarction, Buerger’s disease, Raynaud’s phenomenon.

Examination of the affected limb revealed absence of radial and brachial pulses with swelling of fingers. Radial artery doppler revealed occlusion of radial artery from its origin from brachial (Figure 1). As there was no relative or absolute contraindication for thrombolysis patient was immediately administered intravenous streptokinase 1.5 million units over two hours. Pain in the limb was partially relieved therefore it

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was planned to further infuse streptokinase slowly 1.5 million units over 12 hours. Patient continued to have pain in the limb however he could now move his fingers to some extent which he could not till then i.e. for 14 hours. At this point of time bleeding time, clotting time and platelets were checked and were found to be normal. Under strict medical supervision again intravenous streptokinase was started 1.5 million units to be given over twelve hours. Within 3-4 hours of initiation of 3rd slow infusion of streptokinase i.e. 18 hours post admission patient was relieved of pain and had regained full power in the hand. Postthrombolysis echocardiography showed complete patency of the previously occluded vessel (Figure 2). Subsequently he was kept on intravenous heparin and antithrombotics.

Non-interventional techniques always have an edge over interventional especially where there is lack of infrastructure. Moreover fewer complications both immediate and delayed are added advantages.

Intravenous streptokinase infusion for radial artery thrombosis is worth a trial if there are no relative or absolute contraindications especially if there is lack of infrastructure for interventional procedures.

References

