Open axillary approach alternative access for stenting of external iliac total occlusion

ABSTRACT

A primary endovascular approach is the mainstay of intervention for type C aortoiliac disease. When the femoral artery is unsuitable, upper extremity access can be critical in the setting of severe tortuosity or occlusive disease. The axillary artery represents alternative upper extremity access that may accommodate larger sheath sizes for therapeutic interventions. A 44-year-old gentleman with a history of right below-knee amputation was referred to the vascular unit with a left foot non-healing wound post wound debridement for diabetic foot ulcer. On examination, the left foot was non-salvageable with pitting oedema extended until knee level. Left lower limb pulses were non-palpable from femoral downwards. A biphasic signal was audible at the left femoral and monophasic at the popliteal. Photoplethysmog-raphy showed poor flow distally. Computed tomography angiogram revealed a 12 cm long segment total occlusion of the left external iliac artery just below the bifurcation of iliac vessel. On the right side, there was a long segment occlusion of the superficial femoral artery and calcified common femoral artery. The left axillary artery was used as an access and angioplasty was performed successfully. The advantages of upper extremity access in the axillary artery include the relatively large size and lower atherosclerotic burden. Larger profile stents for aortoiliac occlusion can easily be handled with a good strength through an axillary approach which is antegrade compared to a retrograde femoral approach. With the advancement of safety features of endovascular devices complications with an axillary approach have become less in the recent era.