The Increasing Role of the Vascular Surgeon in Critical Limb Ischaemia

Critical limb ischaemia (CLI) affects an increasing number of patients with a risk of cardiac morbidity and mortality, a poor quality of life with a high risk of limb loss. Given the evolving demographics and the increasing prevalence of CLI in the ageing Western countries, there has been an enhanced focus on developing a safe and effective treatment for CLI.

A patient affected by CLI needs a multidisciplinary approach, which could consist of all available tools from medical, surgical or endovascular therapy. Previous reports mainly for the 1990s suggested that endovascular therapies could reduce morbidity, mortality, length of stay and limb loss. Moreover, in the recent years, the hybrid approach combining in the same setting a surgical reconstruction and a transluminal angioplasty has been an interesting alternative for patients with CLI.

Such a complementary use of endovascular procedures and surgical revascularisation has been validated in numerous reports. The HA can offer the best of both surgical and endovascular approaches within a unique and less-invasive procedure done under local anaesthesia, a short stay with a rapid recovery. In our experience, HA has been currently used to increase either the inflow or the runoff in order to extend the pathway of the revascularisation in different anatomical territories.

As a proof, Brewster et al. reported a favourable 76% 5-year graft patency rate in 79 patients receiving an iliac artery angioplasty followed by a bypass to the lower limb. Similarly, Faries et al. reported a 3-year patency rate of 71% in 126 patients receiving an iliac artery angioplasty followed by an infrainguinal bypass. Madera et al., among 239 endovascular procedures, reported 108 hybrid procedures performed by vascular surgeons in the operating room. In this series, the technical success rate of the angioplasty procedure was 90%, the highest rate for proximal lesions. Similar results were obtained by Dougherty et al. with a few late graft occlusions in relation with the restenosis of the angioplasty site.

All these series demonstrated that HA offers the advantage of a combined procedure with an acceptable limb salvage similar to that reported in the Trans-Atlantic Inter-Society Consensus on the Management of Peripheral Arterial Disease (TASC II) document with the need for a careful follow-up and an aggressive re-intervention policy. Many reports have documented the safety of these endovascular procedures done by vascular surgeons in the operating room. An appropriate follow-up protocol with a prompt re-intervention whenever feasible is of paramount importance, and according to our opinion, the vascular surgeon is the best specialist to take care of these patients, even if this is still debated.

In conclusion, I believe that the treatment of CLI must be managed by vascular surgeons in high-volume vascular centres. The vascular surgeon knows better than anybody else does the pathology, the anatomy, the haemodynamics and the lesion characteristics. This knowledge, combined with that of both surgical and endovascular procedures, makes the vascular surgeon, the best physician to take care of the patients with CLI.

REFERENCES
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