Vascular access care and interventional radiology

Sir,

In the August 2001 issue of *Nephrology Dialysis Transplantation*, Vanholder wrote an editorial about vascular access care and monitoring [1]. Unfortunately, the author expressed some personal statements that are not supported by the available literature, indicating unwarranted disparagement for interventional radiology.

Under the ‘Therapeutic strategies’ subheading, Vanholder wrote that ‘surgical revision remains the gold standard for the treatment of access stenosis’. This statement is incorrect for stenoses located in central veins where ‘angioplasty is the preferred treatment’ as stated in guideline #20 of the American National Kidney Foundation [2].

Concerning peripheral stenoses, Vanholder does not mention that there is only one series in the literature about the outcome of native fistulas after surgical revision in the forearm, combining failing and thrombosed fistulas [3]. These surgical results are similar to those achieved by interventional radiology for failing fistulas (a 50% primary patency rate at 1 year) [4] but interventional radiology fares much better for thrombosed fistulas according to three series recently published in the nephrological literature (65 vs 89–94% success rates) [5–7].

The only available articles concerning the treatment of stenosis or thrombosis of upper arm fistulas are our own reports on interventional radiology [4,5], and they might be considered the ‘gold standard’ unless a report on a surgical series proves the contrary.

Controversy concerning prosthetic grafts remains unresolved but surgery has not been shown to be clearly more successful than interventional radiology [4,8–10]. The drawbacks of surgery, including invasiveness and consumption of the patient’s venous capital have not been mentioned by Vanholder, whereas he stated that percutaneous methods have a ‘non-negligible detrimental effect on the endothelium’, which is not supported by the literature and also does not correspond to our personal extensive experience in this field.

As to the treatment of thrombosis, Vanholder appropriately mentioned that (enzymatic) thrombolysis is contraindicated in some cases but he did not address the wide range of percutaneous mechanical thrombectomy methods [5,6,11–12] which have few contraindications and have proven to be more effective than any surgical technique for native fistulas and as effective as surgery for prosthetic grafts. Similarly, he did not mention the risk of embolic complications linked to any declotting procedure [13,14].

I hope that these remarks will help remind the readership of *Nephrology Dialysis Transplantation* that ‘multidisciplinary’ is at present the keyword in vascular access management and that interventional radiology techniques have gained major importance in recent years.

Department of Cardiovascular Radiology
Clinique St-Gatien
Tours, France
Email: luc.turmel@wanadoo.fr

Reply

Sir,

Turmel-Rodrigues correctly points in his letter to the interesting possibility of percutaneous intervention in the treatment of complications of vascular access. These possibilities were also pointed out in my article. The specification from the editorial office of Nephrology Dialysis Transplantation was to cover the entire spectrum of vascular access problems that could occur in dialysis patients, which is a very vast field. As a consequence, we could discuss it only to a limited extent (as was the case with surgical intervention as well). Turmel-Rodrigues will hopefully understand that if we could have covered every subaspect of access problems in such a detailed way as he does in his letter (and he does not even cover surgery), we would have ended up with a much vaster paper and an enormous number of references. Hopefully, the upcoming European Best Practice Guidelines (EBPG) of EDTA–ERA will take care of this in depth analysis.

If we refer to surgery as the golden standard, we mean that all alternative strategies should be compared to it. It is remarkable how few comparative studies are available to compare all these techniques to each other. I remain convinced that any technique that has been performed with enough care to allow the access system to survive as long as possible is good, and that the choice of the strategy will depend on the local conditions of every individual unit. Hereby, it should be stressed that the results displayed by Turmel-Rodrigues are excellent, but they may be influenced by many individual factors, such as the quality of the original access system, the age and comorbidities of the patients, the frequency with which central vein catheters are placed, the quality of catheter and fistula care, and the application of preventive pharmacological measures.

A comparison with alternative strategies remains a difficult task, and to my opinion should be performed in a prospective manner, where patients are randomized to the different therapeutic possibilities. Even then, the outcome will be biased by the local quality of surgery and/or interventional radiology. It is true that for central vein stenosis, percutaneous intervention is the only valid solution, and this remark is a welcome addition to my paper.

It was certainly not my intention to put forward surgical intervention as the only solution, and I think that my statement that ‘the most reliable alternative therapy is angioplasty’ is in accordance with that philosophy. To my opinion, it is rather unfortunate to forward both strategies as being competitors, and not as being complementary. In that sense I fully agree with Turmel-Rodrigues’ last sentence where he stresses a multidisciplinary approach.

Renal Division
Department of Internal Medicine
University Hospital
Gent, Belgium
Email: raymond.vanholder@rug.ac.be

Raymond Vanholder