

Problem of Vascular Access in Hemodialysis as First Choice Treatment in Senegal

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Commentary

Vascular access is of paramount importance for successful hemodialysis sessions. Any malfunction of the vascular access has a direct impact on morbidity and mortality of the patient under dialysis. Native arteriovenous fistula remains the standard and first line vascular access. This offers the best performance, greater longevity and lower morbidity [1].

Brescia and Cimino [2] were the first to describe a vascular procedure in creating an arterio-venous fistula (AVF) by performing a surgical anastomosis of the radial artery and the cephalic vein. However, there is a wide disparity in terms of geographic regions and centers in the methods of use of vascular access [3].

So in Senegal, in 89.20% of our chronic hemodialysis patients the first hemodialysis was performed using a central venous line, and only 10.80% had started their hemodialysis session with arteriovenous fistula. In a previous study performed in another center in 2010 [4], there was a finding that transitory catheter was performed in 86.6% of the cases.

The use of temporary central catheters as first choice treatment for our dialysis patients were well beyond the 10-20% recommended in the good practice guidelines [5]. However this can be explained by the fact that dialysis session was carried out as an emergency measure in the majority of our patients. Only patients whose entry into dialysis was planned received an AVF as first vascular access. In North America and Europe where over 80% of patients consult a nephrologist at least one month before entry into dialysis, temporary access only accounts for 2-3% of the patients [6].

The difference with our results could be explained by the fact that patients are examined by nephrologists late, and also that some patients attended by nephrologists are referred to vascular surgeons late.

Therefore low rate in our population is also explained by the fact that AVF administration is centralized in a single vascular surgery service for the whole country with a long scheduling period and especially that patients are not monitored in nephrology before dialysis.

For better quality of care in hemodialysis by good vascular access based on AVF, the recommendations are as follows:

1. Refer patients to vascular surgery in time for creation of the AVF as soon as creatinine clearance is below 30 ml/minute.
2. Set up a venous capital preservation strategy in all patients with kidney impairment avoiding venipuncture in the arm and forearm.
3. Start performing AVF in all regional hospitals of the country.

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