

## Reply to the letter to editor

Sir,

We are indeed obliged for the keen interest taken in our article and the minute observations. Addressing your concerns in a pointwise fashion:

1. We think that side-to-side anastomosis of these veins to the brachial artery without ligation of the distal part may not get sufficient results because of previously failed distal veins or low-quality veins. This technique does not reveal good distal venous cannulation because of deficient vein expanding. Otherwise, side-to-side anastomosis of the basilic vein to the brachial artery may result in effective venous flow rate both distally and proximally, but a fistulized basilic vein without transposition is not effective for cannulation because it's deep course. Nowadays, basilic vein transposition can be performed with minimally invasive methods with low morbidity.

Performing a side to side brachiobasilic arteriovenous fistula (AVF) is not a new technique and has been reported earlier in various articles. A study done by Lomonte *et al.* in 2009<sup>[1]</sup> had 30 brachiobasilic AVF constructed as the secondary or tertiary vascular access in 30 patients over a 4-year period. They concluded that use of side to side brachiobasilic fistulae requires lesser time duration and had faster maturation rate as compared to the end to side transposed brachiobasilic fistulae. Our new technique takes this advantage further by dilating the distal valve and allowing a preferential retrograde basilic venous flow and thus allowing forearm vein development. Furthermore, as is known, the basilic vein lies medially in the forearm and is superficial to the fascia making it easily accessible. It is also known as the hidden vein and is protected from multiple pricks and hence thrombosis.

Thus, failure of distally based radiocephalic fistulae or inavailability of the cephalic vein for distal radiocephalic fistula has minimal effect on the patency of medially based forearm veins, and they are relatively spared. In our series of cases when distal forearm veins failed to develop we could still superficialize the basilic vein in the arm without disturbing side to side anastomosis with brachial artery.

2. We think that we have to fistulise a single large segment vein in the arm or forearm, and we do not need two fistulised veins at the same time. If we use median cubital vein for anastomosing, we have to ligate and divide the connection to the basilic vein, so we can use it later for transposing when we need. Side-to-side anastomosis of the vein can cause arterialisation of all segments (arm and forearm) of the vein, and if both sides of the vein are arterialized, this technique may lead steal syndrome and venous hypertension and may cause decrease total fistula count can be used for a patient. We prefer end-to-side anastomosis technique preventing these complications.

The authors here are contradicting their previous theory that side to side anastomosis causes low-velocity flow in the veins which cannot sustain dialysis flow rates by saying that due to the high flow and shunting there may be development of steal syndrome.

Steal syndrome is a known complication of this technique. However, in our study, the incidence this complication has been comparable to international studies on brachiobasilic fistula transposition fistulae.<sup>[2-4]</sup>

To conclude, the aim of this technique is not to prove the supremacy of this technique over radiocephalic or brachiocephalic fistulae, which still remain the procedures of choice subject to the availability of suitable veins, but to provide a better option over end to side brachiobasilic transposition fistula which is a more morbid procedure. Minimally invasive techniques are a welcome change. But the costs for using them may be prohibitive for an average Indian patient requiring haemodialysis. They can definitely be the preferred option in the affording patient. This technique however, is more cost effective in terms of no requirement of general anaesthesia, minimal hospital stay and lesser complications due to reduced wound size, lesser catheter dependency due to faster maturation rate and better patency rates with adequate flow rate of >500 ml/h.

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