

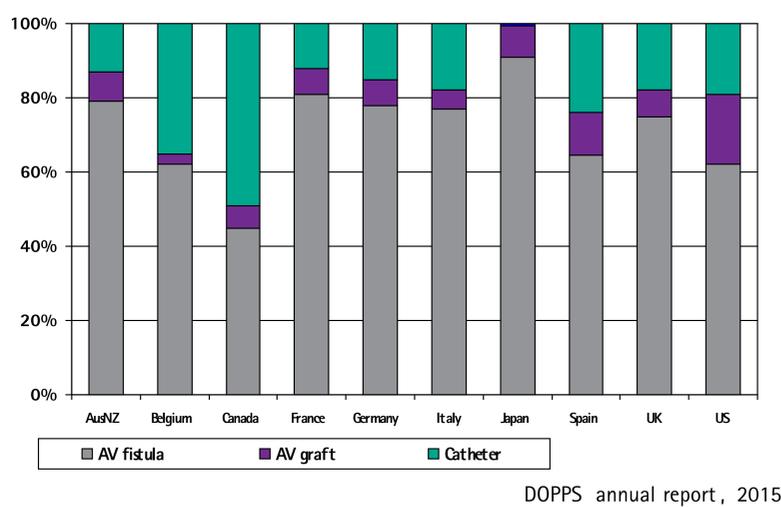
UTILIZATION OF AV GRAFT AS VASCULAR ACCESS

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BACKGROUND

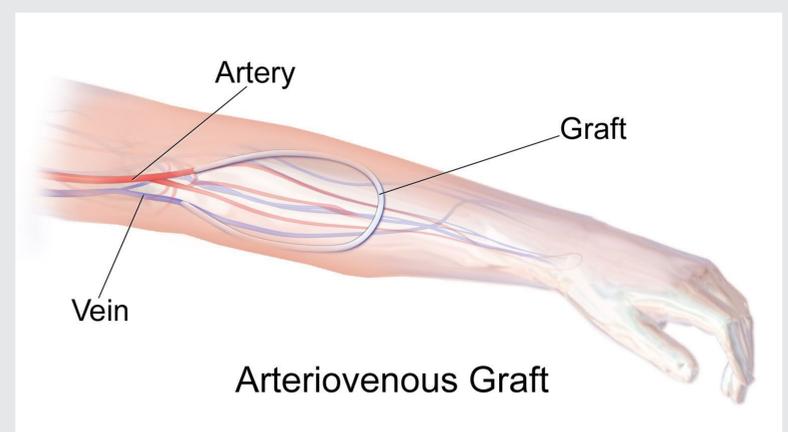
According to the DOQI guidelines on vascular access the first choice should be the AV fistula. In many cases the patient's vascular system does not make it possible to create a native access. AV graft is considered as an „acceptable” second choice for vascular access. The DOPPS annual report reveals that 5-10% of patients are receiving hemodialysis through AV graft in most of the countries.

Utilization of different vascular access



OBJECTIVE

In our network, annual reports of the last 8 years show that AV graft is utilized in less than 0,5% of the patients. We were looking at possible causes behind the low number of grafts based on our own experience.



OBSTACLES

We have addressed the issue from both the vascular surgeon's and the dialysis nurse's viewpoint. We found difficulties on both sides.

1. PTFE (Polytetrafluoroethylene) grafts that are used for placement as vascular access are different from the regular grafts used for bypass surgery. In order to withstand 3x weekly canulations for years, the wall of these grafts have a special structure. This type of graft is not reimbursed for the surgery ward by the local health care system.
2. The nurses have low confidence about using AV grafts because of the low number of grafts itself. At our dialysis unit there have been only 3 patients with AV graft over the past 8 years. As accessing an AV graft needs a different technique than a fistula, nurses were educated on this issue specifically on every occasion. Still most of the nurses had lower self confidence about the procedure as they had a chance to treat the patient with graft very rarely. As a result unsuccessful needling events were more frequent and the life-time of the grafts were lower than expected (11, 24 and 5 months respectively).

DIFFICULTIES WITH GRAFTS

We faced a number of difficulties with our grafts that were different from working with native AV fistulas.

- Puncturing technique should be different (the rear wall can be easily punctured)
- Graft dysfunction can occur more frequently requiring regular ultrasonic follow-up
- Life-time is shorter than of AV fistulas (even shorter if nurses are not practiced enough)

If the number of graft placement increases, these problems should be addressed at the same time in order to get the longest possible patency of the AV graft accesses.



CONCLUSION

In order to lower the ratio of permanent central venous catheters, AV graft could be utilized in higher numbers for patients with failing AV fistula. The nephrology association along with the vascular surgery association should make joint effort in order to establish reimbursement for the special grafts inserted as dialysis AV access. More patients with grafts could make nurses more confident about needling grafts as they could take care of these patients more often.