
Abstract:

Background. The arteriovenous (AV) fistula is the optimal vascular access for chronic haemodialysis (HD) patients. The Dialysis Outcomes and Practice Patterns Study (DOPPS II) reported a high use of central venous (CV) catheters for HD in Canadian centres. We studied factors influencing the choice of access in a prevalent HD population at a Canadian centre.

Methods. This was a cross-sectional study of all HD patients at the Ottawa Hospital (Ottawa, Canada). Demographic information, the type of HD vascular access used and the factors influencing access choice were obtained from medical records. Nephrologists at the Ottawa Hospital were surveyed to identify attitudes that might influence the choice of HD access.

Results. In the survey of nephrologists (n = 17), there was 100% agreement that the AV fistula is the optimal HD access. In 599 prevalent chronic HD patients, AV fistulae were used in 58.0% (n = 347), CV catheters in 39.7% (n = 238) and only 2.3% had AV grafts (n = 14). By multivariate logistic regression, female gender, peripheral vascular disease and shorter duration of HD were independent predictors of CV catheter use. Of the patients with CV catheters, 68.9% had vascular factors or medical contraindications that precluded AV fistula creation. System/resource limitations influenced choice of access in only 19.3% of patients.
with CV catheters, although these factors were more important in patients within the first 6 months of HD initiation.

Conclusions. The relatively high prevalence of CV catheter use at our HD centre is due mainly to patient-specific factors (e.g. unsuitable vessels or medical co-morbidities), rather than resource limitations or physician attitudes. Target setting for AV fistula use requires consideration of these factors as well as the effect of HD duration.

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