

## Letter to the Editor

### Chronic haemodialysis: the access determines the outcome?

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I was interested to read the article by Breidthardt et al. [1] “Morbidity and mortality on chronic haemodialysis: A ten-year Swiss single centre analysis”. The article provides a descriptive analysis of end stage renal disease patients receiving chronic haemodialysis treatment, with special emphasis on domestic outcome and the impact of dialysis withdrawal and renal transplantation on mortality. As the authors suggest, the favourable outcome in this survey cannot be explained solely by participants’ age or dialysis duration. I believe this is probably the result of difference in haemodialysis access patterns.

Haemodialysis access-related complications are one of the most important causes of mortality and morbidity among end stage renal disease patients, and have been referred to as the “Achilles heel of haemodialysis”. Mounting evidence suggests that within the choices of arteriovenous fistula, arteriovenous graft and haemodialysis catheter, the last carries the highest cost burden and more hospitalisation than the former two [2]. Catheter-related bloodstream infection is particularly problematic in haemodialysis catheter use. The number of catheter-related bloodstream infections in the US has been estimated as at least 50 000 episodes per year [3], with some 100 admissions per thousand person-years at risk in 2006. Analysis from the USRDS database also indicates infection as the second most common causes of mortality in end stage renal disease patients, immediately after cardiovascular events [4]. A recent study by Ajay et al. [5] found that haemodialysis catheter use is independently associated with increased mortality (HR 2.226), further consolidating the role catheter-related infection plays in the dialysis outcome survey. Although the majority of mortality cases in Breidthardt’s study do not have an autopsy-proven death origin (only some half are known), patients who succumb to infection (7%) are far

fewer than patients dying from cardiac events (33%) and malignant diseases (8%). Since the prevalence of haemodialysis catheter as vascular access is not reported in the current study, I would like to attribute some of the survival benefit to the difference in access patterns, based on the lower rates of infection-related mortality and the relatively lesser role of diabetes mellitus as comorbidity in survivors. A re-analysis with such information and adjustment of dialysis access modalities may inform us of its effect.

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<http://www.smw.ch/content/smw-2011-13188/>

#### References

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