

therapeutic option for diuretic resistant patients with advanced heart failure and major volume overload. Whilst the recently reported CARRESS-HF trial was negative, by definition that patient group were not diuretic resistant. Our promising results suggest UF merits further study; in particular it may have a significant impact on length of hospital stay with associated health economic benefit in the UK.

REFERENCE

- 1 Bart BA, *et al.* Ultrafiltration in decompensated heart failure with cardiorenal syndrome. *N Engl J Med* 2012;367:2296–304.

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ULTRAFILTRATION: A NEW THERAPEUTIC OPTION FOR UK PATIENTS WITH END-STAGE HEART FAILURE

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Ultrafiltration (UF) is a recognised treatment option for diuretic resistant heart failure. Ultrafiltration may have potential benefits over diuretic therapy: the rate and volume of fluid removed can be carefully controlled, it does not cause neurohormonal activation and leads to improved sodium loss. However the recently reported CARRESS-HF study suggested that UF offered no benefit to a patient group with worsening renal function; stepped diuretic therapy led to a similar weight loss (~5.5 kg) and without the short-term deterioration seen in renal function with UF.¹ We began an ultrafiltration programme in September 2010 and now report our early experience. We have treated 22 patients with a mean age of 71 years (range 41–93). 64% of patients had ischaemic heart disease and 50% were in AF. Mean systolic blood pressure prior to undertaking UF was 111 mm Hg (range 89–140), however seven of these patients required additional support with dopamine. Mean weight (\pm SD) prior to UF was 97 \pm 21 kg. Mean UF time was 83 \pm 36 h with a mean weight loss of 10 \pm 5 kg during UF (p <0.01). Renal function deteriorated transiently during UF though there was no significant effect on renal function during the hospital stay as a whole. Mean creatinine on admission was 202 \pm 117, pre UF was 165 \pm 58, post UF was 187 \pm 79 (p <0.05, pre vs post) and on discharge was 173 \pm 63 μ mol/l, respectively. Serum potassium rose from 4.22 (\pm 0.45) to 4.68 (\pm 0.62) mmol/l (p <0.01). Mean weight loss during the hospital stay was 15 \pm 7 kg. All patients survived to hospital discharge; however 10 patients have subsequently died during a mean follow up of 316 \pm 254 days. Given the very advanced nature of these patients' disease this was not unexpected. Mean length of stay was long at 26 days (range 8–68), however patients were in hospital for a mean of 8 \pm 24 days before UF was commenced. Ultrafiltration is an additional