The scope of a combined kidney failure-heart failure clinic

Authors: Racquel Lowe-Jones, Joey Junarta, Ahmad Salha, Bayiha Klaud Francheska, Lisa Anderson, Juan C Kaski and Debasish Banerjee

Aims

Chronic kidney disease in heart failure (CKD-HF) is common, with high mortality, poor quality of life (related to anaemia, fluid overload) and multiple clinical issues which require a multidisciplinary approach. The role of a combined nephrology-cardiology clinic to manage CKD-HF patients is not known, which this study investigates.

Methods

This study examined the referral patterns, comorbidities, management issues and interventions in patients referred to a combined CKD-HF clinic in an inner-city tertiary care hospital. All data were collected as part of an audit for patients referred over 10 months and analysed using SPSS 25.

Results

A total of 69 patients were referred between March and December 2017; 60 patients attended a first visit; 33 a second visit, seven a third visit and one a fourth visit. Three patients died during this period. Clinical characteristics were: age 76±13 (mean±SD) years, males 69%, hypertensives 88%, diabetics 53%, dyslipidaemics in 70%. The laboratory results were eGFR 33±12 mL/min/1.73 m^2, potassium 4.56±0.49 mmol/L, creatinine 186±88 µmol/L, haemoglobin 114±21 g/L, ferritin 223±232 µg/L. On echocardiogram the ejection fraction was 45±14% with half the population below 50%.

At presentation 57 patients were on beta blockers, 43 on angiotensin converting enzyme inhibitors /angiotensin-receptor blockers (ACEi/ARBs), 20 patients on mineralocorticoid receptor antagonists (MRA). Six patients were on maximum dose of ACEi/ARBs and one patient on maximum dose of MRA. One patient had a pre-visit potassium of 5.6 mmol/L. Twenty-six (45%) patients had a haemoglobin <110 g/dL. Twenty-two patients had a ferritin <200 µg/L.

In the first visit 55 (79%) received advice on diet, salt and fluid restriction. ACEi/ARB was changed or started in 15 (22%) patients. MRA dose was changed or started in seven (10%) patients. Twenty-one patients received intravenous iron, one had a second infusion and 10 infusions on the day of appointment. Serum ferritin improved between first and second visit (p=0.046). Cardiac interventions performed as result of their first visit included dobutamine stress test, cardiac magnetic resonance imaging and placement of a resynchronisation pacemaker.

Patient feedback included comments such as, 'oh great, you brought the heart doctor as well', and, 'one less appointment, that's always good'.

Conclusion

This study shows that the CKD-HF patients referred to the new clinic suffered from multiple morbidity, low kidney function, low haemoglobin and iron stores. The patients rarely received maximum dose ACEi/ARB or MRA though hyperkalaemia was rare.

This novel outpatient clinic was able to address multiple renal-cardiac issues in the same visit with a collaborative approach between two disciplines, with good patient feedback. ■

Conflict of interest statement

None

Acknowledgement

Dr Racquel Lowe-Jones is an International Society of Nephrology and Kidney Research UK fellow.

Authors: St George's University Hospital NHS Foundation Trust, Tooting, UK