Guidelines for monitoring and treatment of renal disease in Sickle Cell Disease

South Thames Sickle Cell & Thalassaemia Network

DISCLAIMER: This guideline is for information purposes only and is not intended to inform any individual clinical decisions. STSTN and its members do not accept any responsibility for outcome of clinical decisions made as a result of reading these guidelines. All guidelines have been peer-reviewed and agreed to be published by the relevant lead consultants in the network.

At every visit

- Bp
- Urine dipstix

Six-monthly review (or more frequently if abnormal)

- Hb
- Albumin-creatinine ratio (ACR)
- Creatinine
- eGFR

Management of abnormal findings

Hypertension

a) If no proteinuria treat if Bp >140/90.

- Aim for target of 130/80
- Start ACEi eg ramipril 2.5mg, increasing up to a maximum of 10mg per day
- If ACEi is not tolerated, change to ARB eg candesartan
- If hypertension persists on ARBi, add in ARB, as long as K^+ is <6.0mmol/l
- Add in B blocker or Ca antagonist if no improvement

b) If proteinuria is present, treat if Bp > 130/80

- Aim for target of 120/80
- Treatment as above

Proteinuria

a) Dipstix negative and ACR 5-50

- Repeat 6 monthly
- Consider trial entry

b) Dipstix proteinuria

- Send for Protein-Creatinine ratio (PCR) and MSU

c) ACR >50 or PCR >50 (on at least 2 occasions)

i) Investigation

- ANA
- Complement
- Renal ultrasound

ii) Recommend treatment

- First line ACEi eg Ramipril 2.5mg. Escalate if necessary
- If not tolerated consider ARB eg candesartan
- If proteinuria persists add in ARB, as long as K^+ is <6.0mmol/l

d) Haematuria on dipstick testing (New onset)
a) Painless, <40 years

- Renal ultrasound if not performed in previous year
- MSU
- Urine cytology

b) Painful < 40 years

- Renal ultrasound
- KUB
- MSU
- Urine cytology

c) All patients >40 years

- Refer to haematuria clinic for full work-up after ordering the investigations above

Increasing creatinine/ falling GFR

- If persistent trend refer to sickle/renal clinic
- GFR < 30ml/min refer to low clearance clinic

Role of erythropoietin (EPO)

Consider in patients with eGFR <60ml/min and Hb <6.5g/dl and/or Retics <150
These patients should be referred to the renal-sickle clinic

Suggested referral guidelines for the renal-sickle clinic
a) BP not controlled on 2 agents
b) Persistent proteinuria despite ACEI
c) Investigations reveal another cause for renal disease
d) Worsening creatinine/eGFR
e) Candidate for epo

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