

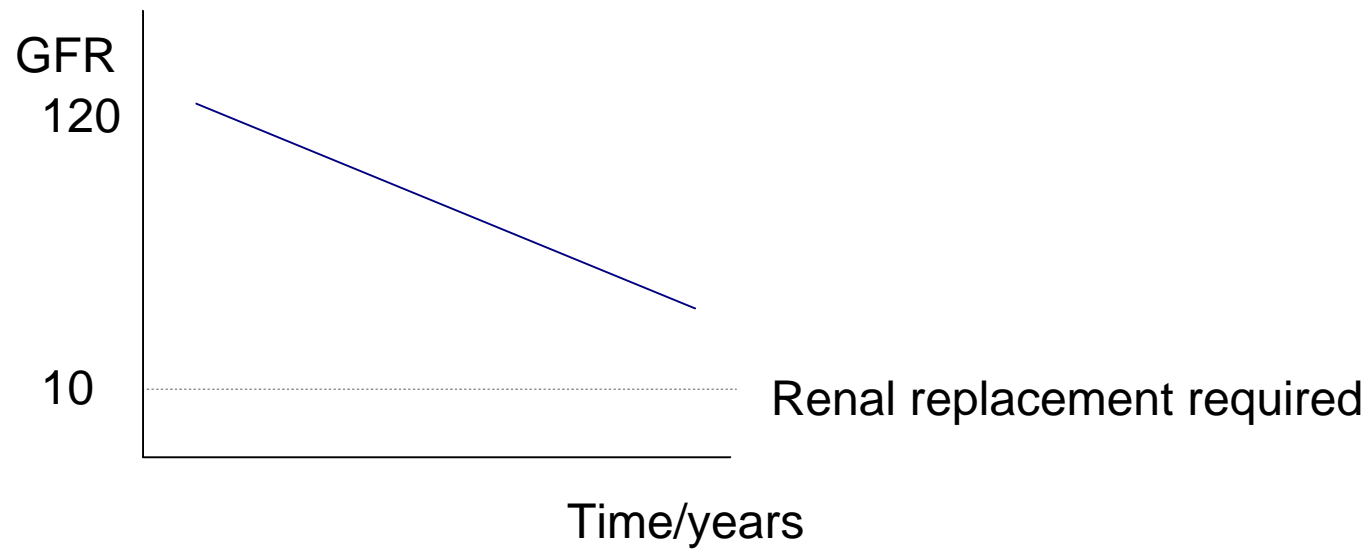
Vasculitis and the Kidney (part II)

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After the diagnosis: what next

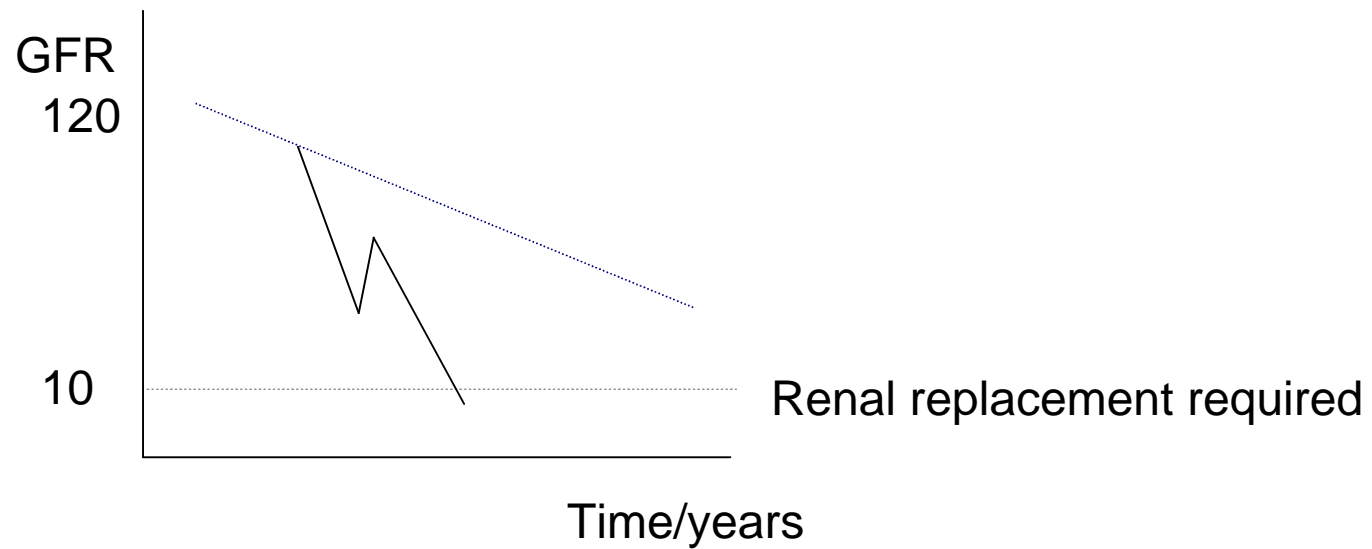
- How to prevent further kidney problems
 - In general
 - Related to vasculitis
- What options are there if the kidneys fail

Kidney function over time



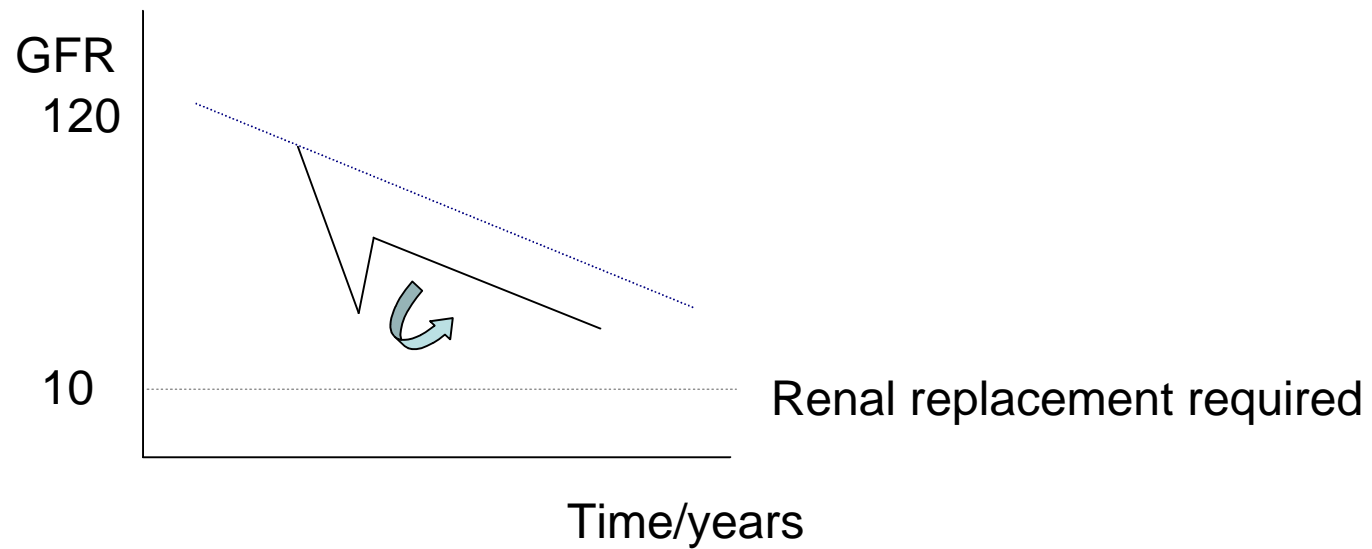
Normal age related decline

Kidney function over time



More rapid decline following acute kidney injury

Kidney function over time



Improvement in kidney decline after treatment

How to slow decline in kidney function

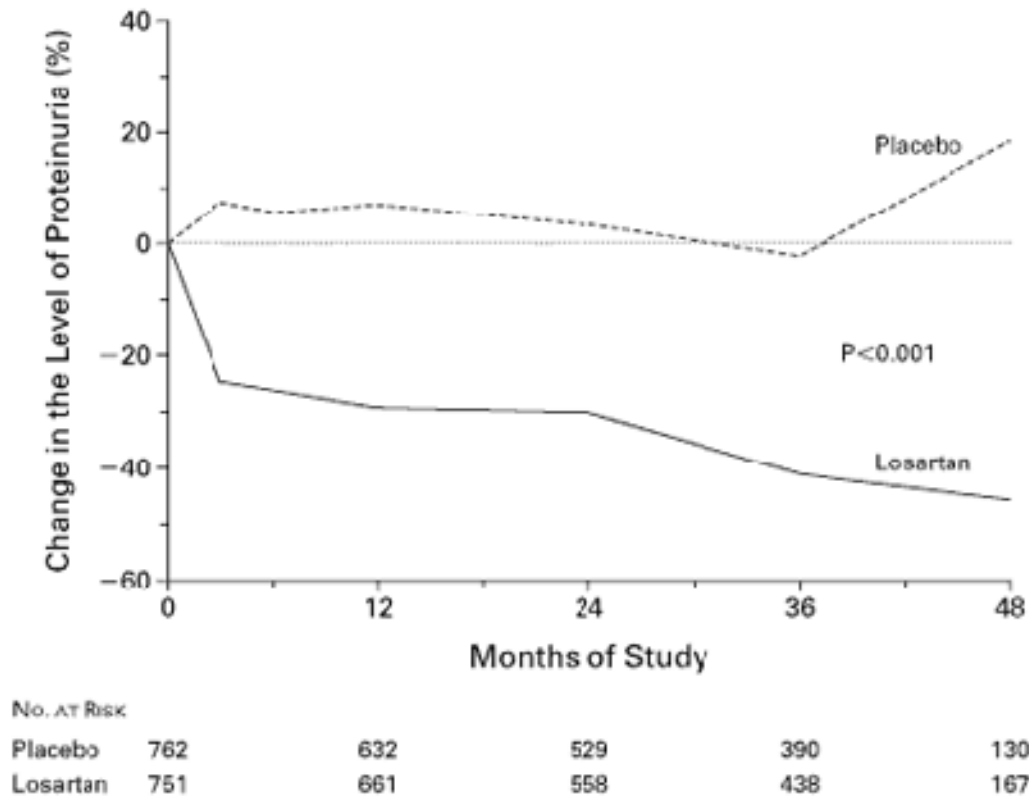
In general:

- Lower blood pressure:
 - target 130/80(125/75 in diabetics)
- Reduce protein leak from kidney
 - Less than 1g/day protein
- Control blood sugar if diabetic
 - HbA1c<7%

Keep blood pressure under control

- Target BP of 130/80 or less if diabetic
- Use ACE inhibitors (ACEI)
 - Ramipril, enalapril, perindopril etc
- or Angiotensin receptor blockers (ARB)
 - Irbesartan, losartan, candesartan etc
- Home monitoring, ambulatory monitoring

Reducing proteinuria



- Using angiotensin receptor blockers specifically reduces proteinuria in diabetic patients.

- Proteinuria is an independent risk factor for heart disease

How to slow decline in kidney function

In vasculitis:

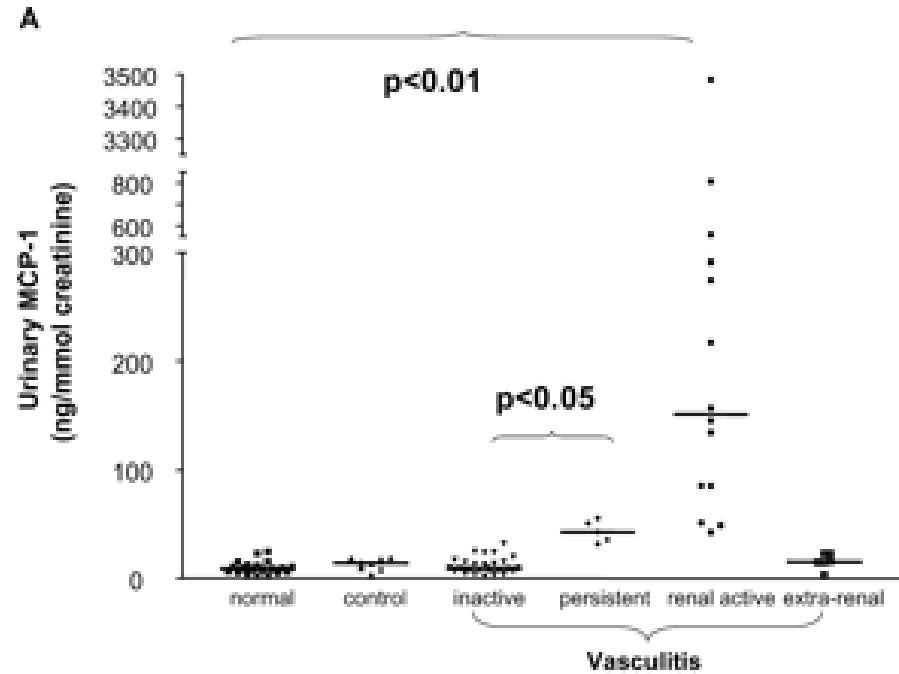
- Assess disease activity and reduce any ongoing inflammation
 - Urinalysis and kidney function
 - Other markers of disease activity
 - ANCA, CRP, cytokines?
 - Kidney biopsy

Non-invasive tests

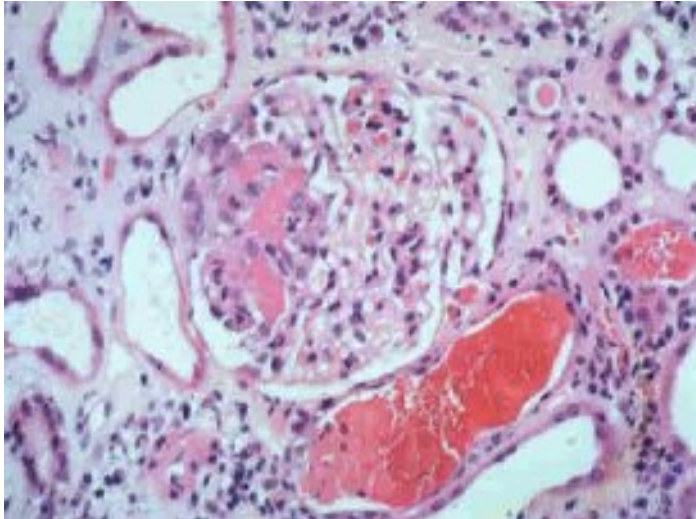
Urine dipstick



Urine cytokines



Invasive tests: kidney biopsy



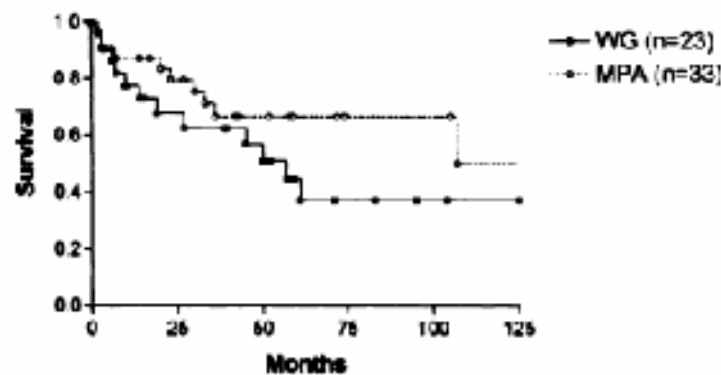
- Allows assesment of:
 - Active disease (reversible)
 - Scarring (irreversible)
 - Any other cause of kidney problems

Further treatment if necessary

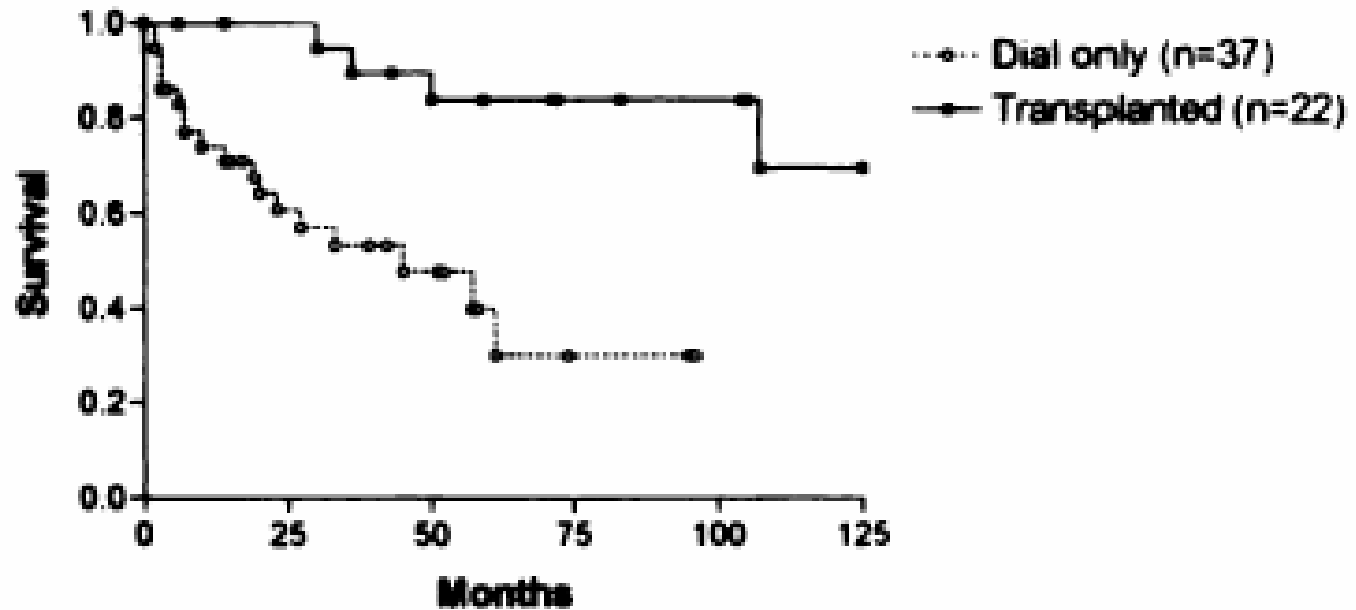
- Further cycles of conventional therapy
 - Attempt to minimise total cyclophosphamide dose
- New agents:
- MMF
- Rituximab (B cell therapies)
- Infliximab
- ?others in the pipeline e.g. CTLA4Ig, anti-IL-6 therapy

Dialysis

- Both haemodialysis and peritoneal dialysis can be used
- Outcome no different to other patients on dialysis and no difference between WG=mPA
- Relapse rate 0.09 relapses/patient/year (low)



Dialysis or transplantation



But, those not transplanted were older and often with other significant medical conditions

Allen et al 1998

Transplantation

- Good outcomes (equal to rest of transplant population)
- Should be in remission
- Probably need to wait for ~1 year from remission until transplant
- ANCA status not relevant at time of transplant
- Relapse rate low (0.02 relapses/pt/year) or 9-10% patients
- Relapses often non-renal
- Living donation works well

Summary

- Renal involvement is a marker of severe disease and requires additional therapy
- Outcome improved with plasma exchange
- Prevention of further decline in kidney function is important
- Renal replacement therapy is best achieved by transplantation if possible