Losing kidneys in Retroperitoneal Fibrosis (RPF) - a prospective analysis of kidney loss as a result of ureteric obstruction from RPF in patients referred to a specialist RPF centre

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**Introduction**
- Ureteric obstruction in the context of RPF can be severe
- Patients are often managed with ureteric stents
- Stents may not provide optimal relief from obstruction in all cases
- The incidence of renal loss at presentation and during treatment in this context is unknown

**Methods**
- Prospective study of 153 RPF patients with ureteric obstruction managed in a specialist RPF centre since 2012
  - Renogram if renal asymmetry on CT; hydro despite stents or deterioration in renal function
  - Poor function defined as <20% and non-function <5%

**Patients**
- 153 patients with ureteric obstruction from RPF
  - 115 (75%) bilateral
  - 38 (25%) unilateral
  - Median age 58 years (40-77)

**Results**
- 129/153 (84%) managed with stent/nephrostomy prior to referral
  - Median time stented prior to referral 22 months (2 - 125 months)

**Imaging**
- Poorly functioning left kidney in patient who was stent dependent for 4 years (above)
- Renogram showing persistent obstruction on left despite ureteric stent (below)

**IgG4-RPF**
- 69 (45%) patients overall had a poor or non-functioning kidney on renogram
  - 12 (17%) poor function
  - 57 (37%) non-function

**Recommendation**
- We recommend renogram following initial stent insertion in patients with ureteric obstruction from RPF if there is renal asymmetry on CT, sub-optimal renal function or hydronephrosis with stents in situ
  - To ascertain if kidney poorly functioning at outset and/or to avoid suboptimal ureteric drainage resulting in renal unit loss

**Conclusions**
- The incidence of poorly functioning kidneys in the context of RPF is high 45%
- The highest incidence of this is seen in patients with IgG4-related RPF (62%)
- These patients have been managed with stents and stent changes for 2 years, on average
- It is not known at what point the kidneys were rendered poorly functioning (at presentation or during endoscopic management)