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P042 -Prescribing tolvaptan for autosomal dominant polycystic kidney disease within the general nephrology clinic setting

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Background

Approved by NICE in 2015, Tolvaptan (Jinarc®) is the first commercially available drug shown to improve rate of decline in renal function in patients with ADPKD. Patients commencing tolvaptan require regular follow-up and frequent monitoring. Within our region and beyond, this often occurs within dedicated ADPKD or genetics clinics that are led by a single consultant or other members of the multidisciplinary team. Here we present the experience within our Trust of managing patients with ADPKD on tolvaptan within an undifferentiated general nephrology clinic.

Methods

A search was undertaken using the Vital Data database to identify all patients who had been prescribed tolvaptan for ADPKD at our Trust. Records were retrospectively analysed to determine baseline demographics and the maximum tolerated dose, as well as serial renal function tests, liver function test (LFT) monitoring and whether tolvaptan was discontinued.

Results

Data from 19 patients currently taking tolvaptan was identified for analysis. The average age was 43.2 years old and 95% of patients had established hypertension. Six patients had chronic kidney disease (CKD) stage 2, two had CKD stage 3a and eleven had CKD stage 3b with a median eGFR at commencement of tolvaptan of 43 mL/min/1.73m² (IQR 36–62.5). All but three patients had renal function measurements up to 12 months post-commencement. 84% of patients achieved the maximum tolvaptan dose (90mg/30mg).

Following the 12-month follow up period, the median eGFR in our cohort was 35.5 mL/min/1.73m² (IQR 32.5–47.25), equating to a decline in renal function of -6.5 mL/min/1.73m². Six patients had an improvement in renal function, including 66% of patients with CKD stage 2 at baseline. The rate of decline in renal function was greater than 10% over 12 months in seven patients, all of whom had CKD stage 3b at commencement. Of the intended 289 monitoring LFTs across the cohort, 279 tests were performed (96.5%). Tolvaptan was discontinued in 2 patients: one due to side effects and the other due to deranged LFTs.

Conclusion

Here we present a cohort of patients established on tolvaptan for ADPKD who were managed in an undifferentiated general nephrology clinic within a Trust that is one of the top ten users of tolvaptan in the UK. We found an improvement in renal function at 12 months in 66% of those who commenced tolvaptan with CKD stage 2 at baseline although numbers were small. The greatest rates of decline were seen in patients commencing tolvaptan with CKD stage 3b. 84% of patients were able to achieve the maximum dose of tolvaptan, comparing favourably to the TEMPO 3:4 trial in which this was only achieved in 55%[1]. The majority of patients received LFT monitoring as per guidelines (monthly for 18 months, three-monthly thereafter), with 96.5% of monitoring blood tests being done. Further analysis at 24 and 36 months will be

essential in determining the longer-term outcomes in our cohort. However our data suggests that these patients may be safely and effectively managed within general nephrology clinics.