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P374 -The effects of tolvaptan on liver and kidney function in patients with Autosomal Dominant Polycystic Kidney Disease

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Introduction

NICE guidelines recommend the use of tolvaptan in selected patients with Autosomal Dominanry Polycystic Kidney Disease (ADPKD) to reduce progression of renal cysts and impairment. However, it may not be well tolerated due to common side effects including transient transaminitis, polydipsia and polyuria resulting in cessation of treatment. In this study, we aim to explore the effects of use of tolvaptan on liver and kidney function amongst our patient group with ADPKD.

Methods

Data including patient demographics, dose and duration of use of tolvaptan, renal function and liver function were collected over a period of 22 months and analysed retrospectively from 33 patient records at one centre. Estimated GFR was used as a representation of renal function and alanine transaminase was used as a representation of liver function in this study.

Results

Thirty three patients were initiated on tolvaptan for ADPKD (57.6% male, mean±SD age 45.2±9.2 years old). No significant decrease in eGFR was noted after 12 months' therapy: results were 94±35% of baseline values (p=0.63). No patient progressed to CKD stage G5 (eGFR <15ml/min/1.73m2). Eight patients (24%) stopped taking tolvaptan during the 22-month period of study.

Of the 8 patients who stopped taking tolvaptan, mean duration of use was 104±84 days. 5 out of 8 patients did not tolerate any dose increment, 1 had dose increased to 60+30mg and 2 had dose increased up to 90+30mg. Six patients were unable to tolerate the aquaretic effects of treatment. Two patient developed transaminitis (1 >3x ULN, 1 >5x ULN) on 90+30mg that resolved within 2 months upon stopping tolvaptan. One patient recommenced tolvaptan 45+15mg but redeveloped transient transaminitis within 2 months.

Twenty five patients continued tolvaptan for mean±SD duration of 276 ± 213 days. Nineteen out of 25 had dose titrated to 90+30mg dose, of which 3 had a subsequent dose reduction. Four out of 25 (16%) stayed on 60+30mg dose and 2 out of 25 have not completed a titration phase. One patient developed transient transaminitis (<3x ULN) on 90+30mg that resolved promptly and did not recur on re-challenge with 60+30mg tolvaptan.

Conclusion

Tolvaptan was associated with transient transaminitis in 9% of patients that prompted permanent cessation of treatment in 6%. There was no significant worsening of renal function during the duration of use of tolvaptan. Six patients (18%) discontinued treatment due to intolerance of aquaretic effects.