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**Effectiveness of Vasopressin inhibitor (Tolvaptan) in delaying progression of kidney disease among patients with autosomal dominant polycystic kidney disease—A Meta-analysis and Review of Literature**

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**Objectives:** This study would like to determine the effectiveness of tolvaptan in delaying the progression of kidney disease among patients with autosomal dominant polycystic kidney disease in terms of delaying the rate of eGFR decline and delaying the increase in total kidney volume.

**Methods:**

Randomized controlled trials involving patients diagnosed with ADPKD who were treated with tolvaptan were searched across databases. Appraisal of all included trials was done. REVMAN was used to generate a quantitative summary for the mentioned outcomes.

**Results:**

According to literature, the average decline in eGFR is 4.4- 5.9 mL/min per year and the rate of growth in kidney volume is ~5% per year among ADPKD patients. This study revealed that the overall mean difference in eGFR decline with tolvaptan compared to control was -1.00 ml per minute per 1.73 m<sup>2</sup>per year (95% CI, -0.69 to -1.3) and the total kidney volume growth was reduced by - 2.7% (CI, -3.3 to -2.1) .

**Conclusions:**

This meta-analysis of RCTs shows that tolvaptan is effective in delaying the progression of autosomal polycystic kidney disease. Albeit its cost, the merit of tolvaptan lies in its ability to delay kidney disease progression, the consequent need for renal replacement therapy and its associated complications, and in improving the overall quality of life of patients with ADPKD.