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# A Review on Kidney Targeted Drug Delivery Systems for Hydronephrosis

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**Abstract:** *Kidney-targeted drug delivery systems represent a promising approach for the effective management of hydronephrosis by ensuring therapeutic agents.directly to the affected renal tissues these systems minimize systemic side effects , enhance drug bioavailability, and improve treatment outcomes compared to conventional therapies.Kidney -targeted drug delivery systems hold great potencial to revolutionize the treatment of hydronephrosis and other renal disorders.Further investigations with suitable imaging are often required before an appopriate management plan can be defined.its hold great potential for improving the treatment of hydronephrosis. By delivering agents directly to the kidneys, these systems can enhance efficacy, reduce systemic side effects,and potentially mitigate kidney damage.Targeting anti inflammatory and anti-fibrotic drugs to proximal tubular cells may prevent systemic infection and renal tubular inflammation*

***Innovation:-*** *Hydronephrosis is characterized by swelling of the kidney due to obstruction of urine flow. Traditional treatments mainly address the obstruction (e.g., surgery, stenting), while drug-based therapy often suffers from poor kidney specificity and systemic side effects. Innovative kidney-targeted drug delivery systems (KTDDS) aim to deliver therapeutic agents directly to renal tissues, improving efficacy while reducing toxicity*

**Keywords**: Kidney, Hydronephrosis



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