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## Role of n-acetylcysteine in prevention of renal failure following snake bite

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Snake bite remains the main cause of death in modern India and its public health importance has been systematically underestimated. India is inhabited by more than 60 species of venomous snakes. About 97% of deaths occur in rural India from snake bites. Acute renal failure is one of the most serious complication a person suffers from snake bite. It can also result in permanent damage to the kidneys requiring the need for maintenance haemodialysis. The process of haemodialysis is not available freely and is costly. N-acetylcysteine is the acetylated derivative of the amino acid L-cysteine. Historically it has been used as a mucolytic agent in chronic respiratory illness as well as antidote for hepatotoxicity due to acetaminophen overdose. More recently animal and human studies have shown N-acetylcysteine to be a powerful antioxidant and potential therapeutic agent in the treatment of cancer, heart disease, HIV infection, heavy metal toxicity, and other diseases characterised by oxidative damage. Use of N-acetylcysteine along with anti-venom has shown to reduce morbidity and mortality by reducing oxidative stress on the kidneys and thus preventing the need for maintenance haemodialysis. This work highlights the importance of N-acetylcysteine in preventing the need of haemodialysis especially among rural patients who are not economically well off.

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