

ABSTRACT

Background

Metformin is the first line oral hypoglycaemic agent used throughout the globe to combat diabetes. Its safety profile is not questionable when compared to most of the other oral medications. Lactic acidosis and acute kidney injury (AKI) are recognised side effects of metformin however in patients with normal renal function AKI is an extremely rare observation. Metformin is excreted by kidney as unchanged. Treating with inappropriately high metformin dose, even if patient has mild renal impairment, has led to escalating blood metformin levels. This is largely accounted for the nephrotoxicity and other clinical manifestations (1). However, metformin induced AKI is reversible with prompt supportive therapy and withdrawal of medication.

Case report

We are reporting an unusual sequelae of metformin overdose resulting in an acute kidney injury in a previously healthy individual in this case report. He is a young boy following a computer course after finishing his advance level studies. Following a dispute with his parents, he took metformin tablets to threaten them. He had taken twenty tablets of metformin and admitted to their nearest hospital after a day of ingestion. Even though he didn't exhibit much symptoms of admission, his renal function drastically increased while he was getting treatment there. He was transferred to us with established acute kidney injury. He was immediately initiated haemodialysis and his renal function was gradually declined. Once he recovered from acute illness he was counselled by our psychiatric team. After successful management by our multidisciplinary team he was discharged and followed up till his renal function becomes normal.

Conclusion

Metformin is a widely used medication and easily accessible for victims of deliberate self harm in this part of the world. It should be considered as a potential cause of AKI in particular when it is taken in supratherapeutic doses, even in previously healthy individuals. Prompt recognition of AKI and early intervention with appropriate volume replacement and renal replacement therapy could prevent significant mortality and morbidity in such previously healthy victims