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**Case of Transient Visual loss due to Metformin-associated lactic acidosis
(MALA)**

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Case Study: Background : Although metformin has become a drug of choice for the treatment of type 2 diabetes mellitus, some patient may not receive it owing to the risk of lactic acidosis. Lactic acidosis associated with metformin treatment is a rare but important adverse event, and unravelling the problem is critical. Metformin-associated lactic acidosis is rare but is still associated with a high rate of mortality of approximately 50 percent.

We present a case of Metformin-associated lactic acidosis (MALA) resulting in transient visual loss (blindness).

Methods: Medical record review

Results: A 68-year-old man with type 2 diabetes mellitus for 20 year, hypertension developed life-threatening lactic acidosis during treatment with metformin 1000mg twice a day, linagliptin 5 mg, glimepiride 2 mg for type 2 diabetes. He presented to our emergency department with a 1 day diarrhea, nausea, vomiting and weakness, dizziness and visual loss (blindness). His mother reported that he was barely able to eat or drink because nausea and appetite loss.

There was a past history of severe alcoholism, but there is no liver cirrhosis , pancreatitis. He had documented normal renal function 4 months before this admission (BUN/Cr 18.9/0.97 mg/dL). After arrival, He was hypotensive with a blood pressure of 91/52mmHg.

Laboratory investigations showed a life-threatening metabolic acidosis with pH of 6.78, bicarbonate 4mmol/L, anion gap 38mmol/L. The blood glucose was 65 and serum lactic acid >11mmol/L. His renal function was markedly reduced. (BUN/Cr 36.9/2.31 mg/dL). He was treated vigorous hydration and sodium bicarbonate infusion, but metabolic acidosis was not corrected. Therefore, he performed hemodialysis once. After once dialysis treatment, his blindness was improved, severe acidosis resolved. His renal function has stabilized with a creatinine of 1.01mg/ml.

Conclusion: This case a relatively rare, though important complication from metformin.