



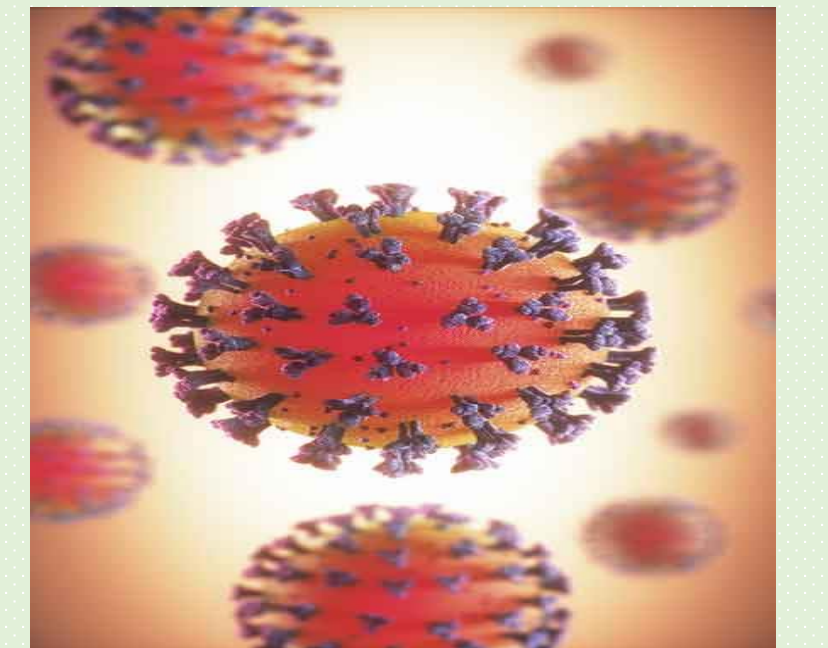
Euglycemic ketoacidosis a clinical presentation in pregnant women with Covid 19 infection A Case report

Background

Year 2020 was a huge stress to healthcare all over the world due to covid-19pandemic. Within a few weeks of this pandemic brought in plenty of research into the effect of this virus on effect of pregnancy and its outcome. With the successful launch of preventive measures and vaccination, it is no longer a threat to placentitis and adverse pregnancy outcome. Euglycemic ketoacidosis is a serious condition which manifests after prolonged period of starvation, acute illness, severe vomiting with or without diabetes. Insulin resistance, a normal physiological change predisposes pregnancy to a diabetogenic phase with increased susceptibility towards ketosis. Covid 19 is an independent risk factor for ketosis in normoglycemic individuals

Case report

This is a case report of 28-year-old women covid unvaccinated in her second pregnancy expecting DCDA twins 34 weeks gestation day 8 covid positive. on presentation she was very unwell, no fever, tachypnoeic, tachycardiac, maintaining spO2 saturation of 99% in room air subjective absence of air entry on left lung base, no crepitation on auscultation of respiratory system. Prior to her presentation to the hospital patient had severe vomiting. In view of her clinical condition arterial blood gas done to rule out complications of Covid 19. Blood gases suggestive of metabolic acidosis. Urine no growth, however did spik suggestive of ketones and blood ketones were positive. Chest X ray was normal. blood sugars were normal. analysing the clinical and laboratory findings the diagnosis was confirmed as euglycemic ketoacidosis secondary to starvation complicated by covid infection. MDT involving obstetricians, anaesthetist, endocrinologist, Infectious disease team, Physicians to formulate best treatment plan. Keeping with the diagnosis her management involved intravenous fluid, intravenous insulin therapy, electrolyte correction, monitoring of maternal and foetal responses. After 24 hrs of vigorous treatment maternal rectification of metabolic ketoacidosis and correction of electrolyte imbalance was noted. During her treatment she was on continuous foetal monitoring. Even though good maternal response was noted, however reduced variability and unprovoked decelerations persisted on CTG of twin 1. In view of foetal reasons there was universal consensus to deliver twins at 34+1 weeks by caesarean section twin 1 baby boy 2.4 kg and twin2 baby girl 2.1 kg born in good condition. Post-natal phase for both mother and babies were uneventful, the twins stayed with mother not needing any neonatal admissions. Post operatively patient was well with complete rectification of ketoacidosis, was discharged day 5 post caesarean.



Discussion

The SARS-Cov-2 infection may precipitate both a hyperglycaemic state and ketoacidosis occurrence in patients with diabetes and nondiabetic patients, which may lead to fatal outcomes. Diabetic ketoacidosis is a life-threatening complication of diabetes and is considered a medical emergency. Euglycemic DKA is a variant of DKA with normal or minimally elevated glucose. The condition is difficult to diagnose. Pregnancy, infection, low calorie intake are some of the contributing common aetiologies of this condition. It is notable that the management of euglycemic ketoacidosis follows the same principles as diabetic ketoacidosis

Conclusion

Ketoacidosis can have an adverse effect on both maternal and foetal outcome. Timely diagnosis and management are crucial for optimal outcome. Covid 19 vaccination in pregnant women is protective against adverse effects of Covid 19 infection

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