

KEY WORDS

diabetes, epidemiology, diabetic ketoacidosis, hyperglycemic hyperosmolar state

OA-D-03

PREVALENCE OF VITAMIN B12 DEFICIENCY AND ITS ASSOCIATED FACTORS AMONG PATIENTS WITH TYPE 2 DIABETES ON METFORMIN IN MALAYSIA

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INTRODUCTION

It has been proven that vitamin B12 deficiency is more common among metformin treated subjects with a variable prevalence worldwide, and this can lead to an array clinical sequelae. We evaluated the prevalence of vitamin B12 deficiency among metformin treated patients with type 2 diabetes in Malaysia.

METHODOLOGY

This is a cross-sectional study involving 205 patients from a Malaysian district aged 18 years old and above who have been on metformin for at least 6 consecutive preceding months. Medical history was obtained via a standardized questionnaire and all subjects had blood drawn for serum vitamin B12 levels.

RESULTS

Vitamin B12 deficiency was defined as serum B12 level ≤ 300 pg/ml (221 pmol/L). The prevalence of vitamin B12 deficiency among metformin treated patients with type 2 diabetes was 28.3% (n=58) and the mean vitamin B12 level was 457 ± 231 pg/ml. A longer duration of diabetes and metformin use for more than 5 years were associated with an increased risk for vitamin B12 deficiency ($p < 0.05$). The non-Malay population were at a higher risk for metformin associated vitamin B12 deficiency ($p < 0.001$).

CONCLUSION

Our study suggests that patients with type 2 diabetes on metformin should be screened for vitamin B12 deficiency. This is especially so among patients with a longer duration of diabetes and those on metformin for more than five years. Also, it should be kept in mind that the non-Malay population with diabetes in Malaysia seem to be at increased risk for vitamin B12 deficiency compared to their Malay counterparts.

KEY WORDS

metformin, vitamin B12, deficiency

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DIABETIC KETOACIDOSIS: PATTERN OF PRECIPITATING FACTORS AMONG CHILDREN IN A TERTIARY CARE HOSPITAL IN BANGLADESH

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INTRODUCTION

Diabetic ketoacidosis is a major complication of childhood type 1 and type 2 diabetes mellitus and is associated with increased risk of morbidity and mortality. Infections, non-compliance and co-morbid states are most important precipitating causes. Proper identification of the precipitating factor is very important in management of DKA. There are very few published large studies from Bangladesh. For this reason, this study evaluated fifty children with DKA and identified their precipitating factors.

METHODOLOGY

This observational study was done among admitted children with DKA in the Department of Paediatrics of BIRDEM General Hospital during study period between September 2016 to February 2017. All children (<18 years) with a diagnosis of DKA, whether previously known to have diabetes or newly diagnosed case were included in the study while patients having other causes of acidosis like chronic kidney failure, diarrhea were excluded from the study.

RESULTS

Fifty children were admitted with DKA. Seventy percent were new cases and the remaining (30%) were known DM patient. Majority were female (62%). Mean age was 9.31 years with 4.40 standard deviation among affected children. Infection was the most common (62%) precipitating factor followed by insulin omission (10%).

CONCLUSION

In this study, infection was the most common precipitating factor for DKA. Knowledge of precipitating factors and clinical features of DKA will help in early diagnosis of DKA among children and thereby reduce morbidity among them.

KEY WORDS

children, diabetic ketoacidosis, precipitating factors