therapy. Lithium has been used as an adjuvant therapy in thyrotoxicosis because of its ability to inhibit thyroid secretion. This is a case report of thyrotoxicosis complicated by dengue-induced hepatitis and neutropenia successfully treated with lithium.

CASE 1: ***Thyroid storm triggered by dengue***

A 24-year-old lady with Graves' disease presented with acute delirium on day 2 of fever. Laboratory tests included a positive dengue NS1 antigen, suppressed thyroid stimulating hormone (TSH) <0.008 mIU/L [normal value (NV), 0.55 to 4.78] and elevated free thyroxine (FT4) 118.46 pmol/L (NV 11.6 to 22.7). The diagnosis of thyroid storm was made based on delirium, fever, diarrhoea and rapid atrial fibrillation. Prompt treatment with propylthiouracil (PTU), propranolol, Lugol's iodine, intravenous hydrocortisone and appropriate dengue supportive care were instituted. However, on day 3 of fever, the absolute neutrophil count (ANC) plummeted to 0.3 (NV 2 to 7 x 10^3/μL) and transaminases demonstrated an increasing trend. PTU was substituted with lithium 300 mg TDS and continued for 3 days. She recovered completely on day 6 of illness with normalized liver function tests and ANC.

CASE 2: ***Thyrotoxicosis with dengue***

A 36-year-old lady with Graves' disease on PTU 300 mg OD presented with 5 days of fever, vomiting and bleeding tendency. She was clinically in a hyperthyroid state. Laboratory tests revealed positive dengue NS1 antigen and IgM, suppressed TSH (<0.01 mIU/L), borderline FT4 (21.3 pmol/L), low ANC (0.5 x 103/μL), and elevated transaminases [ALT 213 U/L (NV 10 to 49) and AST 817 U/L (NV 0 to 34)]. She was started on intravenous N-acetylcysteine for the significant dengue-induced hepatitis. Lithium 300 mg BD was initiated instead of PTU/carbimazole for 3 days. Liver enzymes and ANC improved, and she recovered completely on day 8 of illness.

CONCLUSION

Lithium is an alternative option for thyrotoxicosis especially in the setting of dengue-induced hepatitis and neutropenia.

PP-40

Insulin Basalog is Associated with Low Glycemic Variability in Type 2 Diabetes Subjects

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Ida IA, Norasyikin AW, Norlaila M
Endocrine Unit, Universiti Kebangsaan Malaysia Medical Centre

INTRODUCTION

Basalog is a biosimilar insulin that has been proven to be safe and efficacious, with the added potential to reduce healthcare costs. Glycemic variability (GV) refers to oscillation in blood glucose throughout the day either due to hypoglycaemia or postprandial increments. Continuous glucose monitoring (CGMS) is a useful tool to measure GV. To date, there has been no study describing the glycemic variability of insulin Basalog in type 2 diabetes (T2D) patients.

OBJECTIVE

To describe the glycemic variability of T2D patients on insulin Basalog

METHODOLOGY

A total of 55 T2D patients were recruited in a single centre study. Basalog was added in patients with uncontrolled diabetes on oral hypoglycemic agents. CGMS was started at least 6 weeks following the addition of Basalog. GV was analysed using the EasyGV software that calculated mean blood glucose (MBG), SD, mean amplitude of glycemic excursions (MAGE), average daily risk ratio (ADRR), lability index (LI), J-Index, low blood glucose index (LBGI), high blood glucose index (HBGI), continuous overlapping net glycemic action (CONGA), mean of daily differences (MODD), glycemic risk assessment in diabetes equation (GRADE), mean glucose (M-value) and mean absolute glucose (MAG).

RESULTS

The parameters for glycemic variability were calculated as follows MBG 9.7±3.01, SD 2.6±1.00, MAGE 4.4±1.28, ADRR 24.4±13.94, LI 2.9±1.62, J-Index 52.8±34.23, LBGI 3.0±5.31, HBGI 10.8±10.2, CONGA 8.9±3.02, MODD 2.4±1.08, GRADE 9.0±7.26, M-Value 16.3±22.7 and MAG 1.5±0.42. The calculated coefficient of variation was 26.8%. The M-value showed 74.5% patients to have good control over their blood glucose. Majority of the patients had a low risk of glycemic variability: 72.7% based on LBGI, 65.5% based on HBGI and 41.8% from ADRR.

CONCLUSION

Basalog was demonstrated to have low glycemic variability with lower risk of hypoglycaemia and postprandial hyperglycaemia.