

EP_A024

PROBIOTICS AND INSULIN AUTOIMMUNE SYNDROME

<https://doi.org/10.15605/jafes.038.S2.42>

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INTRODUCTION/BACKGROUND

Insulin autoimmune syndrome (IAS) is characterized by positive insulin autoantibodies and recurrent hyperinsulinaemic hypoglycaemia in someone without diabetes as well as no prior insulin exposure. The association between probiotics and IAS has not been reported in literature. Here we describe a case of IAS induced by a probiotic supplement.

CASE

A 74-year-old female presented with reduced consciousness and low blood glucose (2.1 mmol/L) after taking molasses drinks the night before. She had no diabetes. During hospitalization, she experienced multiple episodes of hypoglycaemia (usually occurring postprandially) and a thorough workup revealed inappropriately elevated serum insulin levels, serum C-peptide, and the presence of insulin autoantibodies. The molasses drink tested negative for sulfonyleureas. There were no identified risk factors for IAS except she had been taking one type of probiotic pills for 2 months prior to the hospitalization. The probiotic was discontinued, and she was managed conservatively with the advice of taking a small, frequent, and low carbohydrate diet. She returned for a follow-up visit later with no more hypoglycaemia events.

IAS is a rare hypoglycaemic disorder with hypoglycaemia episodes that occur mainly postprandially. It is frequently reported in the East Asian population and its incidence is mounting due to increased awareness of the condition. IAS is commonly triggered by drugs (e.g., methimazole, alpha lipoic acid), and most cases have coexisting autoimmune disorders (e.g., Graves' disease, systemic lupus erythematosus, rheumatoid arthritis). Fortunately, IAS is usually self-limiting with good outcomes after discontinuing the offending agents or stabilizing the coexisting autoimmune diseases.

CONCLUSION

To our knowledge, this is the first case that highlighted the association between probiotic supplementation and IAS. Further studies to underpin the association and mechanisms are required.

EP_A025

COVID-19 PANDEMIC AND VIRTUAL CLINIC FOR DIABETES CARE: A SINGLE-CENTRE EXPERIENCE

<https://doi.org/10.15605/jafes.038.S2.43>

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INTRODUCTION

The COVID-19 pandemic and increasing prevalence of diabetes combined with a growing shortage of new healthcare professionals presented an opportunity to digitalize diabetes care and rapidly implement virtual diabetes clinics with the aim of optimizing diabetes management and well-being while keeping patients safe, improve efficiency and reduce disease burden. We present our experience in managing our own virtual diabetes clinic in Hospital Sungai Buloh during the COVID-19 pandemic.

METHODOLOGY

We conducted a quantitative real time data collection between July 2020 until October 2022 from patients who attended the virtual diabetes educator clinic in Hospital Sungai Buloh. All patients received usual diabetes care along with the virtual clinic follow-up. The primary objective was to evaluate the effectiveness of a virtual diabetes clinic on HbA1c reduction, frequency of SMBG and patient satisfaction.

RESULT

Twenty nine (29) patients were seen in 2020, while 155 patients and 202 patients were seen in 2021 and 2022 respectively, demonstrating an increase of about 47 patients in a year. HbA1c levels before the virtual clinics ranged 8-12% and was reduced to a lower range of <6.5% to 10% after the virtual clinic sessions. Twenty eight (28) patients were able to achieve HbA1c of <6.5% within 8 months. All patients were able to comply with a self-blood glucose monitoring regimen (pre-meals and fasting) and were monitored every three weeks. We also saw an increase in the number of referrals from other departments such as obstetrics, paediatric and surgical based units, from 2 to 29 patients.

CONCLUSION

Virtual consultations, especially following the COVID-19 pandemic have proven to be crucial in maintaining a line of communication with people with diabetes, encouraging self-management remotely and reducing treatment burden. The virtual diabetes clinics in Hospital Sungai Buloh ensured better glucose control and implementation of good lifestyle modification despite COVID-19 restrictions.