

PP-15**CHARACTERISTICS AND EFFECTIVENESS OF DIABETES ONE STOP CLINIC FOLLOW-UP AMONG PATIENTS WITH TYPE 1 DIABETES MELLITUS IN TEMERLOH, PAHANG**

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INTRODUCTION

Type 1 diabetes (T1D) is commonly diagnosed during childhood or early adulthood. Dealing with the diagnosis is an overwhelming experience. Apart from glycemic control and prevention of diabetic complications, there is an immense need to address emotional fluctuation, dealing with peer pressure, social acceptance and interpersonal relationship.

METHODOLOGY

This study aims to determine T1D patient characteristics and diabetes control, treatment and diabetes self-care practices after enrolling into a Diabetes One Stop Clinic (DOSC) in Hospital Sultan Haji Ahmad Shah, a tertiary hospital in Temerloh, Pahang. All T1D patients attending DOSC were recruited into the study. Electronic medical records were reviewed for data collection.

RESULTS

Seventeen (17) patients with T1D were recruited into the study, with mean age of 20.7 (SD 6.7) years old, mean age at diagnosis of 13.8 (SD 5.7) years old and mean duration of diagnosis of 7.1 (SD 4.7) years. There were almost equal number of male and female patients and majority were of Malay ethnicity. Thirteen (13) patients had positive autoantibodies while 4 patients had diabetes diagnosed during childhood with no autoantibody test record. At presentation to DOSC, mean HbA1c was 13.1%. 82.4% (n=14) of patients were on basal bolus regimen and 35.2% (n=6) of patients were on full analogue insulin regimen. At latest follow-up, mean HbA1c had improved to 10.5% with all patients on basal bolus regimen and in 94.1% (n=16) of patients on analogue insulin. Total dose of insulin did not increase significantly from DOSC entry till latest follow-up, but majority of the patients experienced improvement of glycemic control. 41.2% (n=7) had proteinuria or microalbuminuria, while 35.3% (n=6) had deranged liver enzymes. 76.5% (n=13) of patients had adjusted insulin doses according to meal intake and 52.9% (n=9) performed carbohydrate counting.

CONCLUSION

Provision of Type 1 diabetes care in Temerloh, Pahang is challenging and require a targeted and personalised approach with most patients. Improving glycemic control requires continuous patient engagement and reinforcement during each follow-up.

PP-16**INTRACTABLE HEADACHE DURING PREGNANCY IN A PATIENT WITH ACROMEGALY: A CASE REPORT**

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INTRODUCTION

Acromegaly is usually caused by a growth hormone-secreting pituitary adenoma, mainly macroadenoma. Pregnancies are relatively rare in patients with acromegaly due to high incidence of hypopituitarism. There is limited data on management of acromegaly in pregnancy and also insufficient data available about use of octreotide LAR in pregnant women with acromegaly. Clinical activity of acromegaly during pregnancy has been variably reported with some improving, some remaining stable and some worsening. Prevalence of headache in patients with acromegaly varies from 37 to 87%. In the American registry of pituitary tumors, headache was reported in 40% of patients with acromegaly. This form of acromegaly-associated headache may even worsen during pregnancy.

RESULTS

We describe a 34-year-old nurse with onset of hypertension at 19 years of age. 4 years later, she was diagnosed with acromegaly. Pituitary MRI showed a left pituitary macroadenoma measuring 1.5 x 1.5 x 0.8 cm with well-defined lobulated margin. She underwent endoscopic transsphenoidal surgery and was started on octreotide LAR due to persistent disease. Six years later, she conceived spontaneously and octreotide LAR was discontinued as the disease was controlled with normalization of IGF-1 level. Her pregnancy was uneventful during the first and second trimester. However, she developed severe headache associated with vomiting and high blood pressure at 32 weeks gestation. She was started on short acting octreotide 50 mcg three times per day for a week with concomitant octreotide LAR 30 mg. The headache improved and blood pressure was controlled subsequently. She safely delivered a healthy baby girl via caesarean section at 38th week of gestation.

CONCLUSION

Pregnancy in women with acromegaly is generally safe with tumoral and hormonal stability. Treatment interruption at pregnancy confirmation has proven to be safe. This case highlights the fact that medical therapy with octreotide LAR should be considered in a pregnant patient with significant headache. Short-acting somatostatin analogue can be initiated together with long-acting somatostatin analogue to get immediate effects.

PP-17**FUNCTIONING VAGAL PARAGANGLIOMA**

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INTRODUCTION

Paragangliomas (PGLs) are rare neuroendocrine tumors arising from sympathetic or parasympathetic paraganglia, which can be sporadic or familial. Sympathetic PGLs are almost always functional (clinically active) while parasympathetic PGLs are usually not. Parasympathetic PGLs usually arise in four distinct areas: carotid body, vagus, middle ear, and larynx. Herein, we report a case of functional vagal paraganglioma and discuss its management.

RESULTS

A 49-year-old female presented with a painless neck swelling, which was gradually increasing in size over the past 4 years. She sought medical advice after experiencing episodic headache along with palpitation and 10kg weight loss over a 2-month period. She had a noticeable right sided neck swelling, and labile blood pressure. Further evaluation revealed elevated 24 hour urine noradrenaline and an metaiodobenzylguanidine (MIBG)-avid right neck mass. Following a diagnosis of functioning neck paraganglioma, phenoxybenzamine and carvedilol were initiated two weeks prior to surgery. She underwent embolization followed a day later by surgical excision of the tumor with vagus nerve reconstruction. Intraoperatively, a short period of sodium nitroprusside infusion was required during manipulation of the tumor. Postoperatively, a brief period of inotropic support was required. Histologic examination of the excised mass revealed a paraganglioma with a low proliferative index (Ki 67 <5%). She was well and normotensive upon discharge.

CONCLUSION

Paraganglioma is a rare and curable cause of hypertension. Preoperative preparation with alpha-blocking with or without beta-blocking agents together with volume expansion are crucial before surgical resection. This case highlighted the importance of a multidisciplinary team involvement in every aspect of the patient's care in order to have an adequate decision-making process.

PP-18**BIOENHANCED TOCOTRIENOL-RICH VITAMIN E (TOCOVID) IMPROVES NERVE CONDUCTION VELOCITY IN PATIENTS WITH TYPE 2 DIABETES MELLITUS: PHASE II DOUBLE-BLIND, RANDOMIZED CONTROLLED CLINICAL TRIAL**

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INTRODUCTION

This study aims to investigate the effects of bioenhanced tocotrienol-rich vitamin E (Tocovid Suprabio™) on nerve conduction parameters and serum biomarkers among patients with type 2 diabetes mellitus.

METHODOLOGY

Eighty-eight patients were randomized to receive 200 mg of tocotrienol-rich vitamin E (Tocovid) twice daily or matching placebo for 12 months. Nerve conduction parameters, vitamin E levels and serum biomarkers were measured at 2, 6 and 12 months.

RESULTS

After 12 months, patients in the Tocovid group showed highly significant improvement in conduction velocity (CV) of both median and sural sensory nerves compared to placebo. The between intervention group differences (treatment effect) in CV were 1.60 m/s (95% CI: 0.70, 2.40, p=0.007) for median nerve and 1.97 m/s (95% CI: 1.10, 3.45, p=0.036) for sural nerve. Significant improvement in CV was only observed up to six months in tibial motor nerve CV, 1.30 m/s (95% CI: 0.60, 2.20, p<0.001). There were no significant changes in transforming growth factor beta-1 (TGFβ-1) and vascular endothelial growth factor A (VEGF-A). After six months of washout, there were no significant differences from baseline between groups in all nerve conduction parameters of all three nerves.