

## Allogenic Stromal Vascular Fraction (SVF) therapy for Type 2 Diabetes Mellitus (T2DM): Case study

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### Abstract

#### Introduction

T2DM is a common chronic metabolic disease which is increasing all over the world. Currently, there is no known cure but the disease can only be controlled to improve the quality of life.

#### Objective

To investigate the potential of Stromal Vascular Fraction (SVF) for glycaemic control in T2DM patients.

#### Background

55 years old gentleman with underlying T2DM since year 2009 and was started on oral anti-diabetic (OAD) agents for the past 10 years. In view of his poor glycaemic control despite on optimal conventional medications, he consented to undergo Allogenic SVF therapy.

#### Method

Careful preparation measures were taken including proper selection of donor through screening. SVF cells isolated and prepared in sterile setting. The patient underwent 3 sessions of Allogenic SVF therapy started in Oct 2018, followed by Mar 2019 and June 2019. Each of the sessions, patient received 30ml SVF derived from 50ml condensed adipose tissue (approximately 50-100,000 MSC per ml of adipose tissue) by intravenous injection.

#### Result

Follow up was carried out 1 month after each session of Allogenic SVF therapy. Fasting glucose reduced from 12.4mmol/L to 7.6mmol/L and HbA1c reduced from 7.6% to 6.9%. Patient's OAD agent dosage adjusted and no complication was observed.

#### Conclusion

We demonstrated the safety administration of intravenous Allogenic SVF. Despite conventional treatment, we hope to encourage more SVF research for glycaemic control in T2DM and develop an effective stem-cell based treatment for diabetes.

Dr. Pei Swam Ng, as a proud dean list graduate of Bachelor of Medicine and Bachelor of Surgery (MBBS) from University of Malaya, Kuala Lumpur. She obtained the Medical Aesthetic Certificate (MAC) and she was also trained locally and abroad. She is an expert in anti-aging solution and main area of interests are regenerative medicine (stem cell, PRP and bioidentical hormone therapy) and facial injectables.



### Speaker Publications:

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[13<sup>th</sup> International Conference on Stem Cell and Regenerative Medicine](#), April 20-21, 2020, Webinar

### Abstract Citation:

Pei Swam Ng, Allogenic Stromal Vascular Fraction (SVF) Therapy For Type 2 Diabetes Mellitus (T2DM): Case Study, [13<sup>th</sup> International Conference on Stem Cell and Regenerative Medicine](#)



### Biography: