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Volume 1125, 25 October 2016, Pages 255-262

Preclinical evidence of Malay traditional herbal supplement for diabetes

(Conference Paper)

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Abstract

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In this report, one herbal folk recipe traditional claim for diabetes treatment, jamu KM is subjected to scientific studies. The exposure of traditional diabetes decoction, KM extract to 3T3-L1 at 1 mg mL⁻¹ shows significant increase in glucose uptake with no LD₅₀ value. 150 µg mL⁻¹ methanolic extract of Jamu KM yield intense lipid droplet accumulation in non-insulin induced adipocytes 3T3-L1. Further investigation through in vivo study of KM extract using diabetic Sprague Dawley rats indicates reduction in blood glucose at the concentration of 0.05 g kg⁻¹ body weight (bwt). A similar response was observed with the treatment using glibenclamide at 0.006 g kg⁻¹ bwt. Histopathological data show increase in the relative organ weight (g 100 g⁻¹ bwt) of liver and kidney of all diabetic rats as compared to normal group while pancreas was not affected. However, glibenclamide treated group shows 14 and 15% larger liver and kidney, respectively, than the other diabetic groups and jamu KM treated. This finding is a promising approach in validation of herbal medication from the past wisdom through modern techniques.

Author keywords

Diabetes Jamu KM Malay Preclinical Validation

Funding details

Funding number	Funding sponsor	Acronym
IRPA/2001-2004/74054	Ministry of Higher Education, Malaysia	MOHE

Funding text

The authors wish to thank Ministry of Higher Education, Malaysia (IRPA/2001-2004/74054) and Johor Biosatelite (BSP(J)/BTK/001(3)) for the financial support, Ibu Rosmania of Millenium Multi Herbs, Malaysia, Nature Medic Supply, Malaysia and Proliv Life Sciences Sdn Bhd, Malaysia for the supply of Jamu KM and background data on the herbs. The authors acknowledge their profound gratitude to Universiti Teknologi Malaysia and Ministry of Agriculture (NKEA Herbal Research Grant Scheme, NRGs: Vot 4H016) for funding the research activities.

ISSN: 05677572

ISBN: 978-946261131-3

Source Type: Book series

Original language: English

DOI: 10.17660/ActaHortic.2016.1125.32

Document Type: Conference Paper

Volume Editors: Mentreddy S.R., Gafner S., Craker L., Patil B.

Publisher: International Society for Horticultural Science

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