UNIVERSITI TEKNOLOGI MARA

EVALUATION OF BLOOD COAGULATION ACTIVITY IN AQUEOUS EXTRACT FROM THE STEMS OF Mikania micrantha

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Project submitted in fulfilment of the requirements for the degree of Bachelor of Medical Laboratory Technology (Hons.)

Faculty of Health Sciences

2019

DECLARATION BY STUDENT

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for UnderGraduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ACKNOWLEDGEMENT

In the name of Allah, The Most Gracious, The Most Merciful.

Alhamdulillah, all praises to Allah S.W.T the Most Merciful and Most Generous, whose blessing has provided me with good health, sufficient time, and rational thinking throughout the journey to complete this thesis. Peace and blessing to Nabi Muhammad S.A.W., all prophets and their families. I praise Allah S.W.T. for the strength and His blessings.

Thousands of thanks and love to my parents Mr. Mazlan bin Paniran and Mrs. Sanisah binti Paniran for their endearing support and encouragement throughout the journey to complete my study. My deepest gratitude and appreciation to my dearest supervisor, Dr Emida Mohamed who tirelessly guiding and advising from the beginning till the end of my research journey. Not to forget, I would like to thank all the lecturers in Department of Medical Laboratory Technology, Faculty of Health Sciences.

I would also like to extend a huge, warm thank you to the laboratory staff of Undergraduate Department, UiTM Puncak Alam, particularly to Pn Iadah Elias, which has been a great help toward this study. A special thanks to my teammates, Nur Azizah Hamzah and Nur Hayati Baha for the cooperation and support provided, and all my friends in general. Thank you.

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ABSTRACT

EVALUATION OF BLOOD COAGULATION ACTIVITY IN AQUEOUS EXTRACT FROM THE STEMS OF Mikania micrantha

Modern pro-coagulant drugs has unwanted side effects such as causing breathing difficulties and sensory problems. Thus, natural remedies such as the extract from the stems of Mikania micrantha could provide an alternative with less to no adverse effect. Mikania micrantha, which is considered as one of the worst weed in the world, has potential as a blood-clotting agent based on its traditional usage. Hence, aqueous extract was prepared using water via the decoction method. The concentrated extract was further serially diluted to prepare different concentrations using normal saline (12.5%, 25%, 50%) and 100%) prior to coagulation assays (aPTT and PT tests). Commercial control plasma were added with the different concentrations of extract and their clotting time were recorded. For aPTT test, the extract was found to demonstrate significant reduction in clotting time for plasma added with 25%, 50% and 100% concentrations of extract. As for the PT test, only the plasma added with 100% concentration of extract was found to show significant reduction in clotting time. Therefore, observations from this study indicates that the aqueous extract from the stems of Mikania micrantha reduces the clotting time for both extrinsic and intrinsic pathways of the coagulation cascade. As such, the stems of *Mikania micrantha* has potential to be used as a blood-clotting agent.

Key words:

Blood-clotting agent, Mikania micrantha, aqueous extract