



UNIVERSITI PUTRA MALAYSIA

***SURVEY ON AWARENESS OF RABIES AS ZOOONOTIC DISEASE
AMONG DOG OWNERS IN
UNIVERSITY VETERINARY HOSPITAL (UVH),
FACULTY OF VETERINARY MEDICINE,
UNIVERSITI PUTRA MALAYSIA***

AMIRAH ABU BAKAR

FPV 2018 6

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A project paper submitted to the
Faculty of Veterinary Medicine, Universiti Putra Malaysia
In partial fulfillment of the requirement for the
DEGREE OF DOCTOR OF VETERINARY MEDICINE
Universiti Putra Malaysia
Serdang, Selangor Darul Ehsan.

MARCH 2018

CERTIFICATION

It is hereby certified that we have read this project paper entitled “Survey on awareness of Rabies as zoonotic disease among dog owners in University Veterinary Hospital (UVH), Faculty of Veterinary Medicine, Universiti Putra Malaysia”, by Amirah bt. Abu Bakar and in our opinion it is satisfactory in terms of scope, quality, and presentation as partial fulfillment of the requirement for the course VPD 4999 - Project.

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DEDICATION

In the name of Allah, The Almighty and The Most Merciful

Special dedication and appreciation I give to...

My beloved family, who has always prayed for my success and
showered me with their unchanged love

Abu Bakar Bin Mat Isa

Salamah Binti Abdullah

Muhammad Syahmi Abu Bakar

Nurnajwa Husna Abu Bakar

My beloved friends, who drive my journey like a roller coaster

Geng Kiah and Poshroom

Arustika Dancers and Arustika Putrasakti family

And to my cat at home, Omel and in memory, Adek

ACKNOWLEDGEMENTS

First and foremost, I would like to thank Allah SWT for ease my journey in finishing my final year project.

I wish to express my deep sense of regards and indebtedness to my supervisors, Dr. Sharina Omar and Dr. Puteri Azaziah Megat Abdul Rani for their guidance throughout the project.

Special thanks to Boehringer Ingelheim for providing tokens of appreciation for my respondents.

Special thanks to all my friends who helped me directly or indirectly throughout my final year project.

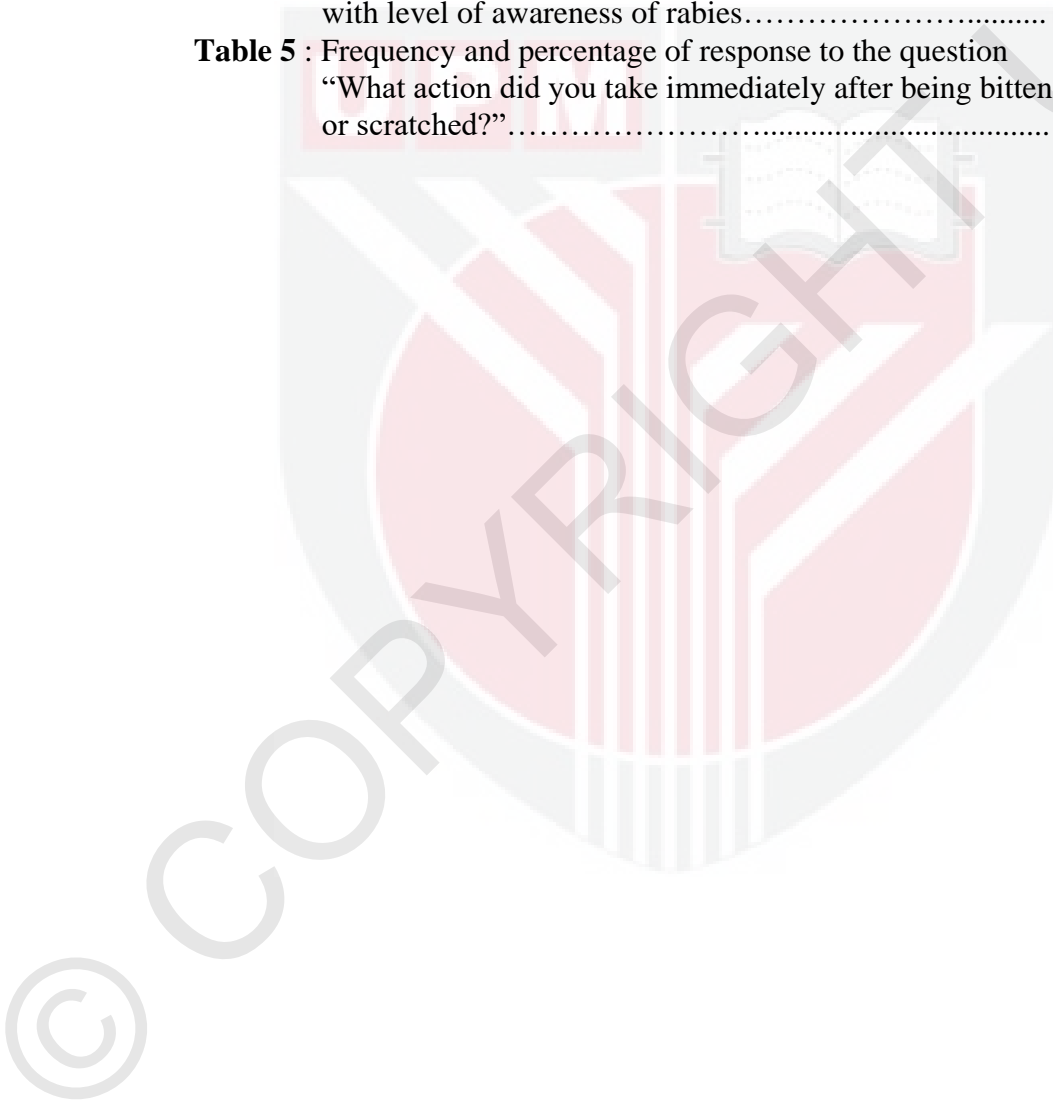
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ABSTRAK

Abstrak daripada kertas projek yang dikemukakan kepada Fakulti Perubatan Veterinar untuk memenuhi sebahagian daripada keperluan kursus VPD 4999 -Projek.

SOAL SELIDIK MENGENAI KESEDARAN RABIES SEBAGAI PENYAKIT**ZOONOTIK DI KALANGAN PEMILIK ANJING DI HOSPITAL****VETERINAR UNIVERSITI (UVH), FAKULTI PERUBATAN VETERINAR,****UNIVERSITI PUTRA MALAYSIA****Oleh****Amirah Bt. Abu Bakar****2018****Penyelia: Dr. Sharina Omar****Penyelia bersama: Dr. Puteri Azaziah Megat Abdul Rani**

Rabies dianggap sebagai salah satu penyakit zoonotik paling penting kerana semua mamalia terdedah kepada rabies termasuk manusia. Adalah sangat penting bagi pemilik anjing untuk menyedari rabies bagi mengelakkan penularan penyakit semasa mengendalikan haiwan yang dijangkiti. Kajian ini dijalankan untuk menentukan tahap kesedaran rabies sebagai penyakit zoonotik di kalangan pemilik anjing di Hospital Veterinar Universiti (UVH). Satu set borang soal selidik terdiri daripada pelbagai pilihan dan soalan tertutup yang terdiri daripada tahap jawab balas yang berbeza mengenai rabies diedarkan selama 3 minggu kepada pemilik anjing yang berbeza di UVH. Seramai 33 penjawab telah memberi maklum balas. Data dianalisis menggunakan statistik deskriptif untuk menentukan tahap kesedaran rabies. Majoriti

pemilik anjing mempunyai tahap kesedaran yang rendah iaitu sebanyak 85% (n=28). Terdapat juga perkaitan yang nyata antara tahap kesedaran rabies dengan sumber maklumat yang diperolehi oleh pemilik anjing [Nilai P = 0.036 ($\alpha = 0.05$)]. Di samping itu, sembilan daripada dua belas pemilik anjing (75%) yang digigit atau dicakar oleh anjing tidak mendapatkan rawatan perubatan. Oleh itu, kita dapat menyimpulkan bahawa tahap kesedaran rabies sebagai penyakit zoonotik di kalangan pemilik anjing masih rendah walaupun mengetahui ia berbahaya kepada manusia.

Kata kunci: Rabies, penyakit zoonotik, kesedaran, soal selidik, pemilik anjing

ABSTRACT

An abstract of the project paper presented to the Faculty of Veterinary Medicine in partial fulfillment of the course VPD 4999- Project.

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by

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2018

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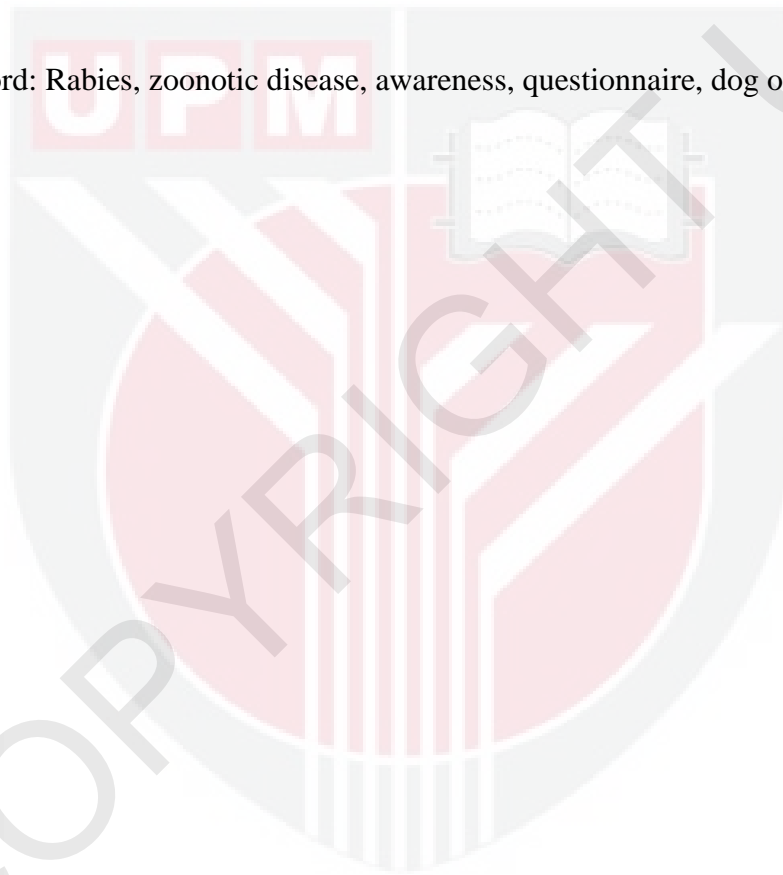
Co-Supervisor: Dr. Puteri Azaziah Megat Abdul Rani

Rabies is regarded as one of the most important zoonotic diseases as all mammals are susceptible to rabies including human. It is especially important for dog owners to be aware of rabies to prevent disease transmission when handling the infected animals.

This study was conducted to determine the level of awareness of rabies as zoonotic disease among dog owners in University Veterinary Hospital (UVH). Questionnaire consist of multiple choice and closed-ended questions comprising the different level of responsiveness on rabies was prepared and distributed to different dog owners at UVH for three weeks. A total of 33 respondents participated in this project. The data was analyzed using descriptive statistics to determine the level of awareness of Rabies. About 85% (n=28) of dog owners showed low level of awareness. The level

of awareness and the source of information on rabies were significantly associated [P value = 0.036 ($\alpha = 0.05$)]. In addition, nine out of twelve dog owners (75%) who experienced dog bite or dog scratch did not seek medical treatment. Thus, we can conclude that the level of awareness of rabies as zoonotic disease among dog owners was at low level despite knowing it is infectious to human.

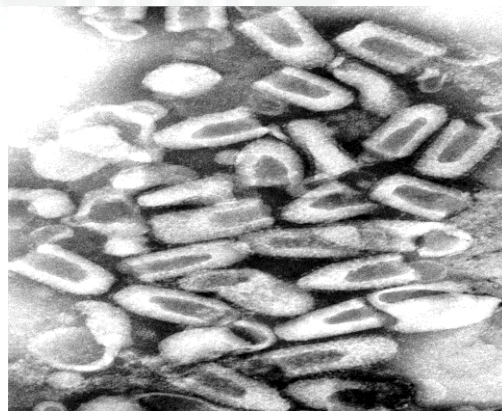
Keyword: Rabies, zoonotic disease, awareness, questionnaire, dog owner



1.0 INTRODUCTION

Rabies is a zoonotic disease caused by negative-strand ribonucleic acid (RNA) neurotropic viruses of the genus *Lyssavirus* from family *Rhabdoviridae* and order *Mononegvirales*. The name *Rhabdo* originated from Greek word meaning bullet or rod shape. As the name given, the virus resembles bullet shape as showed in **Figure 1**(Garg, 2014). According to Centre for Food Security & Public Health [CFSPH] in 2012, all mammals including humans and bats, could be infected by rabies virus subsequently become sick. Each rabies virus strain is maintained in a particular reservoir such as racoon strain in racoons, bat strain in bats and dog strain in a dogs (Garg, 2014). Human beings can be contracted with rabies through the bite, lick or scratch from rabid animal (CFSPH, 2012).

Figure 1: Rabies virus at magnification of 70000X, purified from an infected cell culture. Negatively strand virions showing characteristics of “bullet shape” (Adapted from Murphy, 2012).



The initial clinical signs are often nonspecific and may include apprehension, restlessness, anorexia or an increased appetite, vomiting, a slight fever, dilation of the pupils, hyper-reactivity to stimuli and excessive salivation. Animals often exhibit change in behaviour and temperament. The infected animals may either become unusually aggressive or uncharacteristically affectionate and eventually death (CFSPH, 2012).

The last case of rabies in Malaysia was dated in 1999 and Malaysia was conferred rabies-free status by the World Organization for Animal Health (OIE) in 2012. An outbreak of rabies occurred at the “rabies immune belt”, an area closed to the border of Thailand (Department of Veterinary Services [DVS], 2016) after three years of the endowment. The first case was reported in the state of Perlis in which eight people had been bitten where two out of 4 dogs captured and tested were positive for rabies. Following the case, there were several other reports on dog-bite cases spread to Kedah and Penang that prompted health authorities to start an aggressive response. Stray dogs were euthanized and vaccination for all pets at the affected area were enforced (Laura, 2015). Recently in July 2017, another incidence of rabies was reported in Sarawak. Five human rabies cases and almost 800 cases of people being bitten by rabid animals have been recorded in Serian, Sri Aman, and Kuching divisions. All the five-people died, and no new cases had been reported since then (Center for Disease Control & Prevention [CDC], 2017). However, on 4th February 2018, seventh victim who confirmed had rabies has died while sixth victim is still in critical condition and dependent of life

support machine at his home in Kampung Kuala, Serian, Sarawak (Adib, 2018).

Rabies has recently re-surfaced in Malaysia, therefore it is in need of creating awareness especially to the dog owners on the danger of the virus, how to respond swiftly to bitten and infection, and on the importance of reporting suspected cases.

Hence, this project was conducted to evaluate the level of awareness of rabies as zoonotic disease among dog owners via a set of questionnaire regarding Rabies. This project was conducted for 3 weeks at University Veterinary Hospital (UVH), Faculty of Veterinary Medicine, Universiti Putra Malaysia.

The objectives of the project were to study the level of awareness in dog owners about Rabies as zoonotic disease, to study level of awareness in dog owners on importance of dog vaccination and to educate dog owners on importance of seeking medical treatment.

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