

INTRODUCTION

Human brucellosis is a zoonotic disease caused by bacteria of the genus *Brucella*. In a study done from 2004 to 2009, the seropositivity was low (5.4 %) among suspected human brucellosis cases. This indicates that brucellosis is not very common in Malaysia among individuals who have contact with infected animals. Since then, sporadic cases and outbreaks have been reported, mainly among farmers, veterinarians, and abattoir workers who are exposed to infected animals or their products. However, the true burden of human brucellosis in Malaysia remains unknown due to underreporting, lack of diagnostic facilities, and low awareness among health professionals and the public (1).

Human brucellosis is transmitted to humans through contact with infected animals or their products, such as milk, cheese, meat, or placenta. The symptoms of human brucellosis include fever, headache, muscle pain, fatigue, and enlarged spleen and liver (2).

Human brucellosis can be treated with antibiotics, but relapses are common, and complications can occur. Prevention of human brucellosis requires proper hygiene and sanitation measures, as well as vaccination and control of animal reservoirs (3).

OBJECTIVES

General Objectives:

To describe the epidemiology and clinical profiles of brucellosis cases.

Specific Objectives:

1. To describe the sociodemographic characteristics of brucellosis cases
2. To determine the symptoms of brucellosis cases
3. To investigate the risk factors of brucellosis cases

METHODOLOGY

Study Design:

Cross-sectional study

Study Location:

All districts in Terengganu

Study Period:

2014- May 2023

Study Participant:

Inclusion criteria:

All brucellosis cases notified to the health office in all districts in Terengganu are included in the study

Mode of Data Collection:

These data extracted from line listing of brucellosis cases reported in Terengganu. For the diagnosis of brucellosis, culture and serological tests were used.

Statistical Analysis:

Data was entered and analysed using Microsoft Excel.

DISCUSSION

The consumption of unpasteurized milk was reported to be significantly associated with brucellosis in humans, which is in concordance with the previous studies by K.H. Tay et al (4). The study also found that all patients had prolonged fever and non-specific symptoms.

Tamar Akhvlediani et al found that brucellosis infection was more likely to occur in males, young adults aged 21–40 years (5).

K.H. Tay et al found that assessment of exposure risk to brucella is prudent while taking history for all patients presenting with fever of unknown origin as it will lead to early diagnosis, early treatment and minimized risk of laboratory staff exposure (4).

RESULTS

Table 1: Characteristics of human brucellosis cases from 2014 – May 2023

Factor	No. of Cases (n=13)	%
Age (years)		
Less than 15	5	38.4
15-64	6	46.2
65 and above	2	15.4
Gender		
Male	7	53.8
Female	6	46.2
Race		
Malay	13	100%
Chinese/ Indian	0	0
Occupation		
Clerk	1	7.7
Student	1	7.7
Pensioner	1	7.7
Unemployed	8	61.5
Goat breeder	2	15.4

Table 2: Human brucellosis cases by year and districts

Year/ District	Sporadic Cases	Outbreak (No Of Cases)
2016		
• Kemaman	2	
2017		
• Besut	2	
2018		
• Setiu		1 (5)
2023		
• Hulu Terengganu	2	
• Kuala Terengganu		1 (2)
Total Cases	6	2 (7)

Figure 1: Symptoms of human brucellosis

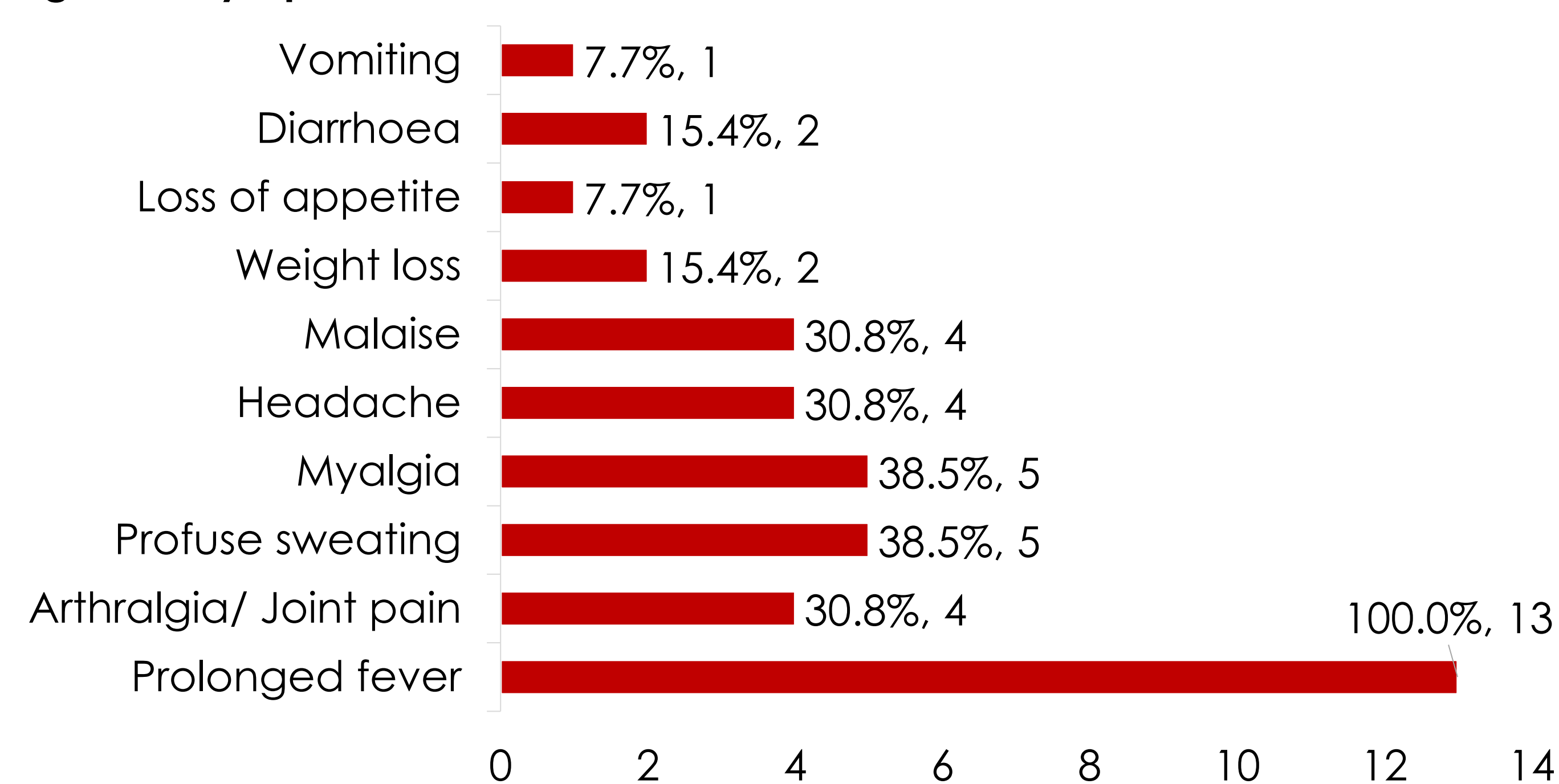


Table 3: Risk factors associated with human brucellosis cases from 2014 – May 2023

Risk Factor	No. of Cases (n=13)	%
Consumption of unpasteurized milk		
Yes	11	84.6
No	2	15.4
Working with livestock		
Yes	2	15.4
No	11	84.6
Lives at farm		
Yes	8	61.5
No	5	38.5
Contact with livestock		
Yes	8	61.5
No	5	38.5

CONCLUSIONS

We found that brucellosis infection is a rare disease in Terengganu. It was more likely to occur in males, adults aged 15–65 years with main symptom was prolonged fever, and majority of cases that reported had consumed unpasteurized milk. The interdisciplinary approach combines the veterinary, medical, and public health disciplines working together could have positive effects on the prevention and management of brucellosis.

There is also a need for updated and comprehensive epidemiological data on human brucellosis in Malaysia to strengthen prevention and control strategies and to assess the impact of the disease on public health and socio-economic development.

REFERENCES

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