

INTISARI

Latar belakang: Leptospirosis dan hantavirus merupakan penyakit zoonosis yang memiliki karakteristik gejala yang mirip. WHO memperkirakan terdapat 500.000 kasus leptospirosis terjadi setiap tahun dengan tingkat kematian mencapai 10%. Kawasan Asia Tenggara termasuk Indonesia merupakan wilayah endemis leptospirosis. Sementara itu kasus leptospirosis di DIY mengalami peningkatan yang signifikan pada tahun 2018 yaitu sebanyak 186 kasus dengan tingkat keparahan mencapai 13%. Namun prevalensi leptospirosis masih belum diketahui secara pasti. Sama seperti leptospirosis, prevalensi hantavirus masih belum diketahui secara pasti. WHO memprediksi setiap tahunnya kasus hantavirus tipe *Haemorrhagic Fever With Renal Syndrome* (HFRS) mencapai 200.000 kasus dengan tingkat kematian mencapai 12%. Walaupun belum terdapat kasus hantavirus pada manusia, hasil penelitian Kementerian Kesehatan RI menunjukkan bahwa terdapat 14,33% tikus positif hantavirus di wilayah DIY. Hal tersebut memungkinkan terjadinya penularan hantavirus dari hewan ke manusia.

Tujuan: Mengidentifikasi prevalensi, faktor risiko dan gambaran spasial kasus leptospirosis dan hantavirus di DIY.

Metode penelitian: Penelitian observasional dengan rancangan studi potong lintang selama tiga bulan (Desember 2019 – Februari 2020). Sampel adalah 76 pasien suspek leptospirosis yang berdomisili di wilayah DIY dan mengikuti pemeriksaan MAT dan RT-PCR untuk hantavirus pada periode Agustus 2019 – Februari 2020. Data hasil pemeriksaan spesimen menggunakan MAT dan RT-PCR digunakan untuk menganalisis prevalensi leptospirosis dan hantavirus. Sementara itu data terkait faktor risiko dan gambaran spasial diperoleh melalui wawancara langsung dan studi lapangan.

Hasil: Prevalensi leptospirosis di DIY adalah 9,2% dan prevalensi hantavirus melalui pemeriksaan RT-PCR adalah 0%. Kasus leptospirosis paling banyak ditemukan pada laki-laki (71,1%) dengan jenis pekerjaan sebagai petani (42,8%). Hasil analisis regresi binomial menunjukkan bahwa faktor risiko leptospirosis di DIY adalah aktivitas bertani (PR: 5,03; 95%CI:1,03-18,53), keberadaan tikus di rumah (PR: 4,18; 95%CI: 1,72 – 2,47), dan keberadaan gudang atau lumbung padi di rumah (PR: 4,25; 95%CI: 1,33 – 11,57). Pola sebaran leptospirosis di DIY cenderung mengelompok pada koordinat titik koordinat 110.2719 – -7.7746 Zona UTM 49S.

Kesimpulan: Prevalensi leptospirosis di DIY adalah 9,2%. Faktor risiko leptospirosis yang paling dominan adalah faktor risiko aktivitas dan kondisi lingkungan rumah dimana rumah kasus berada pada pemukiman padat dan dekat dengan area sawah (<15 meter).

Kata Kunci: *Prevalensi, Faktor Risiko, Distribusi Spasial, Leptospirosis, Hantavirus*

ABSTRACT

Background: Leptospirosis and hantavirus are zoonotic diseases that have similar epidemiological features. WHO estimates that there are 500,000 cases of leptospirosis occur each year with a mortality rate reaching 10%. The Southeast Asian region including Indonesia is an endemic region of leptospirosis. Meanwhile, cases of leptospirosis in DIY increased significantly in 2018 reaching 186 cases with a case fatality rate of 13%. However, the burden of leptospirosis is poorly understood in the Special Region of Yogyakarta Province (DIY). As with leptospirosis, the prevalence of hantavirus is still not fully recognized. WHO predicts that every year Hemorrhagic Fever with Renal Syndrome (HFRS) reaches 200,000 cases with a mortality rate of 12%. Piloting research conducted by the Indonesia Ministry of Health (MoH) found 14.33% of confirmed hantavirus positive on rodents DIY. Furthermore, it indicated that the transmission of hantavirus from rodents to humans could have potentially occurred in DIY.

Objectives: To identify the prevalence, risk factors, and distribution pattern of leptospirosis and hantavirus cases in DIY.

Methods: A cross-sectional study was conducted from December 2019 to March 2020. A total of 76 suspects of leptospirosis living in special region of yogyakarta and whose specimen tested by using Microscopic Agglutination Test (MAT) for leptospirosis and Reverse Transcription Polymerase Chain Reaction (RT-PCR) for hantavirus from August 2019 to February 2020 were involved in this study. The result of MAT and RT-PCR were used to analyze the prevalence of leptospirosis and hantavirus. Meanwhile, data regarding risk factors and spatial distribution were collected using interview and field study.

Result: The result showed the prevalence of leptospirosis was 9.2% and the prevalence of hantavirus was 0%. Case mainly found in males (71.1%) and mostly identified in paddy farmers (42.8%). Binomial regression analysis showed risk factors of leptospirosis were agricultural activities (PR: 5.03; 95%CI:1.03-18.53), the presence of rats at home (PR: 4.18; 95%CI: 1,72 – 2,47) and the presence of warehouse or granary at home (PR: 4.25; 95%CI: 1,33 – 11,57). Meanwhile, the distribution pattern of leptospirosis clustered at coordinates 110.2719 – -7.7746 Zona UTM 49S.

Conclusion: The prevalence of either leptospirosis or hantavirus was 9.2% and 0% respectively. Meanwhile, risk factors of leptospirosis were mostly dominated by human activities and environmental conditions. Additionally, the case in cluster formation lives in densely populated residential houses which close to paddy fields (less than 15 meters).

Keywords: *Prevalence, Risk Factors, Spatial Pattern, Leptospirosis, Hantavirus*