

INTISARI

Di Indonesia laju insidensi tuberkulosis sebesar 385 kasus tiap 100.000 penduduk mencapai kedua di dunia (WHO, 2022). Sebanyak 35% penyintas tuberkulosis memiliki manifestasi limfadenitis tuberkulosis (Gautam *et al.*, 2018). Sifat *paucibacillary* dari aspirat limfe dan biopsi limfonodi menyulitkan diagnosis dengan GeneXpert MTB/RIF (Antel & Verburg, 2019) sebagai rekomendasi alat diagnostik limfadenitis tuberkulosis dari *World Health Organization*. *Loop-mediated isothermal amplification* (LAMP) berpotensi untuk memiliki profil akurasi (sensitivitas, spesifisitas, *positive likelihood ratio*, dan *negative likelihood ratio*) yang lebih baik daripada GeneXpert MTB/RIF karena bisa mendeteksi konsentrasi asam nukleat 0,2 µg/25 µL.

Pencarian sistematis dengan kata kunci *tuberculosis*, *loop-mediated isothermal amplification*, limfadenitis tuberkulosis menemukan 317 sampel dari 7 artikel yang sesuai kriteria inklusi dan kriteria eksklusi. Bias penelitian pada semua artikel terpilih rendah. LAMP memiliki sensitivitas 83,6% (CI_{95%} 74,7-89,8), spesifisitas 91,3% (CI_{95%} 51,0-99,1), LR (+) 9,615 (CI_{95%} 1,197-77,251), dan LR (-) 0,180 (CI_{95%} 0,117-0,277) dibandingkan kultur BTA pada pasien dewasa suspek limfadenitis TB. LAMP dapat menggantikan GeneXpert MTB/RIF sebagai baku emas diagnosis limfadenitis tuberkulosis.

Tuberculosis incidence rate in Indonesia reaches 385 cases for every 100.000 residents (WHO, 2022). Approximately 35% tuberculosis patients have lymphadenitis tuberculosus (Gautam et al., 2018). Lymph aspirate and lymph node biopsy have paucibacillary properties thus restrict the performance of culture and GeneXpert MTB/RIF (Antel & Verburg, 2019). LAMP has the potential to be superior to GeneXpert for diagnosing lymphadenitis tuberculosus as it possesses capability to detect tuberculosis genetic material at concentration of 0,2 µg/25 µL from sample.

Systematic searching with keyword tuberculosis, loop-mediated isothermal amplification, tuberculous lymphadenitis has searched 317 total samples from 7 articles in accordance with inclusion and exclusion criteria. QUADAS-2 assesses low-risk bias for all articles. LAMP has sensitivity 83,6% (CI_{95%} 74,7-89,8), specificity 91,3% (CI_{95%} 51,0-99,1), LR (+) 9,615 (CI_{95%} 1,197-77,251), and LR (-) 0,180 (CI_{95%} 0,117-0,277) to acid fast culture in diagnosing suspected tuberculous lymphadenitis. LAMP has the potential to substitute GeneXpert MTB/RIF as the gold standard for diagnosing tuberculous lymphadenitis.