

# Peran diagnostik pemeriksaan PCR-TB feses pada pasien terduga kolitis tuberkulosis di RSUPN dr. Cipto Mangunkusumo = Diagnostic role of stool TB-PCR in suspected tuberculous colitis patient at dr. Cipto Mangunkusumo National Central General Hospital

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## Abstrak

**Latar Belakang:** Tuberkulosis (TB) merupakan masalah kesehatan utama di dunia, khususnya di Indonesia. Tuberkulosis umumnya menyerang paru (TB paru), namun bisa juga menyerang organ lain (TB ekstraparu), seperti kolitis TB. Diagnosis kolitis TB menjadi tantangan karena klinis dan hasil pemeriksannya menyerupai penyakit lain, seperti inflammatory bowel disease (IBD). Studi ini bertujuan untuk mengetahui proporsi hasil PCR-TB feses pada pasien terduga kolitis TB dan uji diagnosis pemeriksaan PCR-TB feses jika dibandingkan dengan hasil kolonoskopi, histopatologi, dan evaluasi klinis. **Metode:** Dilakukan studi uji diagnostik pada 60 subjek terduga kolitis TB di RSCM yang menjalani pemeriksaan kolonoskopi pada bulan Februari-April 2019. Ekstraksi DNA dari feses dilakukan dengan menggunakan QIAamp® Fast Stool DNA Mini Kit dan PCR dilakukan dengan kit artus® M. tuberculosis RG dengan target gen 16s rRNA. Hasil pemeriksaan PCR-TB feses dibandingkan dengan hasil kolonoskopi, histopatologi, dan evaluasi klinis.

**Hasil:** Terdapat 60 subjek terduga kolitis TB yang disertakan dan dianalisis dalam penelitian ini. Diperoleh 26 (43,3%) hasil PCR-TB feses positif, yang terdiri atas 7/8 subjek kolitis TB dan 19/52 subjek bukan kolitis TB. Dari hasil penelitian ini, didapatkan nilai diagnostik PCR-TB feses dibandingkan hasil kolonoskopi, histopatologi, dan evaluasi klinis memiliki sensitivitas 87,5%, spesifitas 63,5%, NPP 26,9%, dan NPN 97,1%. **Simpulan:** Pemeriksaan PCR-TB feses memiliki sensitivitas baik namun spesifitas yang rendah untuk diagnosis kolitis TB sehingga lebih baik sebagai pemeriksaan penyaring untuk kolitis TB.

.....**Background:** Tuberculosis (TB) is a major health problem in the world, particularly in Indonesia. Tuberculosis commonly affects lung (pulmonary TB), but it can also affect other organs (extrapulmonary TB), such as TB colitis. The diagnosis of TB colitis has become a challenge because the clinical manifestation and its tests result can mimic other diseases, such as inflammatory bowel disease (IBD). This study was aimed to find the proportion of stool TB-PCR result in patients which suspected with TB colitis and the diagnostic value of stool TB-PCR if compared to colonoscopy, histopathology, and clinical evaluation. **Methods:** Diagnostic study was done in 60 subjects suspected for TB colitis in RSCM which underwent colonoscopy and histopathology examination in February-April 2019. The DNA extraction from the stool was done by using QIAamp® Fast Stool DNA Mini Kit and TB-PCR was done with artus® M. tuberculosis RG PCR kit which targeting 16s rRNA gene. The result of stool TB-PCR then was compared to the result of colonoscopy, histopathology, and clinical evaluation. **Results:** There were 60 subjects suspected with TB colitis recruited and analyzed in this study. There were 26 (43,3%) positive stool TB, consist of 7/8 subjects with TB colitis and 19/52 subjects with non-TB colitis. From this study, the diagnostic value of stool TB-PCR that was compared to combination of colonoscopy, histopathology, and clinical evaluation were: sensitivity 87,5%, specificity 63,5%, positive predictive value (PPV) 26,9% and negative predictive value (NPV) 97,1%. **Conclusion:** Stool TB-PCR has good sensitivity but low specificity for diagnosing TB colitis. Therefore, stool TB-PCR is better utilized for TB colitis screening.