

ABSTRAK

Tuberkulosis (TB) merupakan penyakit infeksi kronis yang masih menjadi tantangan kesehatan masyarakat di Indonesia. Balita termasuk kelompok rentan akibat imunitas yang belum matang. Vaksinasi *Bacillus Calmette–Guérin* (BCG) digunakan sebagai langkah pencegahan infeksi TB, namun efektivitasnya dalam mencegah infeksi di tingkat komunitas masih diperdebatkan. Penelitian ini bertujuan mengetahui hubungan riwayat vaksinasi BCG dengan kejadian TB pada balita di Kelurahan Pondok Kacang Timur. Penelitian ini merupakan studi observasional analitik dengan desain *cross sectional* yang dilakukan pada 1–3 Februari 2025 di tiga posyandu. Sebanyak 127 balita dipilih dengan metode *purposive sampling*. Data diperoleh melalui wawancara terstruktur, verifikasi buku vaksin, dan pemeriksaan bekas luka BCG. Dari total responden, 121 balita (95,28%) telah menerima vaksinasi BCG, sedangkan 5 balita (3,94%) belum divaksinasi. Pemeriksaan klinis menunjukkan bahwa 1 balita (0,8%) terdiagnosis TB, seluruhnya berasal dari kelompok yang telah divaksinasi dan memiliki riwayat kontak erat dengan pasien TB. Sementara itu, 126 balita (99,2%) tidak terdiagnosis TB, baik pada kelompok yang divaksinasi maupun tidak divaksinasi. Berdasarkan distribusi tersebut, analisis hubungan kemudian dilakukan menggunakan uji *Fisher's Exact*. Hasil uji menunjukkan nilai $p = 1,000$. Penelitian ini menyimpulkan bahwa tidak terdapat hubungan signifikan antara riwayat vaksinasi BCG dengan kejadian TB pada balita di wilayah penelitian. Interpretasi hasil tetap perlu mempertimbangkan jumlah kasus yang sangat rendah dan distribusi sampel yang tidak proporsional.

Kata Kunci : Tuberkulosis; Vaksinasi BCG; Balita; Faktor Risiko, *Fisher's Exact*.

ABSTRACT

*Tuberculosis (TB) is a chronic infectious disease that remains a significant public health challenge in Indonesia. Children under five are considered a vulnerable group due to their immature immune systems. Bacillus Calmette–Guérin (BCG) vaccination is used as a preventive measure against TB infection; however, its effectiveness at the community level remains debated. This study aimed to determine the association between BCG vaccination history and TB incidence among toddlers in Pondok Kacang Timur. This analytic observational study employed a cross-sectional design conducted on 1–3 February 2025 across three community health posts. A total of 127 toddlers were selected using purposive sampling. Data were collected through structured interviews, vaccination record verification, and examination of BCG scars. Of all respondents, 121 toddlers (95.28%) had received BCG vaccination, while 5 toddlers (3.94%) had not. Clinical assessment showed that 1 toddler (0.8%) was diagnosed with TB, originating from the vaccinated group and having a history of close contact with a TB patient. Meanwhile, 126 toddlers (99.2%) were not diagnosed with TB, regardless of vaccination status. Based on this distribution, the association was analyzed using Fisher’s Exact test. The test yielded a *p*-value of 1.000, indicating no significant association between BCG vaccination history and TB incidence among toddlers in the study area. Interpretation of the findings requires caution due to the very low number of TB cases and the disproportionate sample distribution.*

Keywords: *Tuberculosis; BCG vaccination; Under-five children; Risk factors; Fisher’s Exact test.*