Abstracts

The Magnitude of Unfavorable Tuberculosis Treatment Outcomes and Their Relation with Baseline Undernutrition and Sustained Undernutrition Among Children Receiving Tuberculosis Treatment in Central Ethiopia

Abay Burusie¹, Fikre Enquesilassie², Nicole Salazar-Austin³, Adamu Addissie²

¹ Department of Public Health, College of Health Sciences, Arsi University, Asella, Ethiopia, ²School of Public Health, College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia ³Division of Pediatric Infectious Diseases, Johns Hopkins University School of Medicine, Baltimore, MD, USA

Background: One of the global key indicators for monitoring the implementation of the World Health Organization's End Tuberculosis (TB) Strategy is the treatment outcome rate.

Objective: This study aims to assess the magnitude of unfavorable treatment outcomes and estimate their relationship with baseline undernutrition and sustained undernutrition among children receiving TB treatment in central Ethiopia.

Methods: This retrospective cohort study included children treated for drug-susceptible TB between June 2014 and February 2022. The study comprised children aged 16 and younger who were treated in 32 randomly selected healthcare facilities. A log-binomial model was used to compute adjusted risk ratios (aRR) with 95% confidence intervals (CIs).

Results: Of 640 children, 42 (6.6%; 95% CI = 4.8–8.8%) had an unfavorable TB treatment outcomes, with 31 (73.8%; 95% CI = 58.0–86.1%) occurring during the continuation phase of TB treatment. We confirmed that baseline undernutrition (aRR = 2.68; 95% CI = 1.53–4.71), age less than 10 years (aRR = 2.69; 95% CI = 1.56–4.61), HIV infection (aRR = 2.62; 95% CI = 1.50–4.59), and relapsed TB (aRR = 3.19; 95% CI = 1.79–4.71) were independent predictors of unfavorable TB treatment outcomes. When we looked separately at children who had been on TB treatment for two months or more, we found that sustained undernutrition (aRR = 3.76; 95% CI = 1.90–7.43),

age below ten years (aRR = 2.60; 95% CI = 1.31–5.15), and HIV infection (aRR = 2.26; 95% CI = 1.11–4.59) remained predictors of unfavorable outcomes, just as they had in the first two months. However, the effect of relapsed TB became insignificant (aRR = 2.81; 95% CI = 0.96–8.22) after the first two months TB treatment.

Conclusions: The magnitude of unfavorable TB treatment outcomes among children in central Ethiopia met the World Health Organization's 2025 milestone. Nearly three-quarters of unfavorable TB treatment outcomes occurred during the continuation phase of TB treatment. Baseline undernutrition, sustained undernutrition, younger age, HIV infection, and relapsed TB were found to be independent predictors of unfavorable TB treatment outcomes among children receiving TB treatment in central Ethiopia.

Keywords: Childhood tuberculosis, Unfavorable treatment outcome, Magnitude, Baseline undernutrition, Sustained undernutrition, Predictors

Reference: Burusie A, Enquesilassie F, Salazar-Austin N, Addissie A. The magnitude of unfavorable tuberculosis treatment outcomes and their relation with baseline undernutrition and sustained undernutrition among children receiving tuberculosis treatment in central Ethiopia. Heliyon. 2024 Mar 30;10(6).

Evaluation of Long-Term Efficacy and Safety of Dienogest in Patients with Chronic Cyclic Pelvic Pain Associated with Endometriosis

Antonio Maiorana¹, Marianna Maranto¹, Vincenzo Restivo², Daniele Lo Gerfo³, Gabriella Minneci¹, Antonella Mercurio¹, Domenico Incandela¹

¹HCU Obstetrics and Gynecology, ARNAS Civico Di Cristina-Benfratelli Hospital, Palermo, Italy, ²Department of Medicine, University Kore of Enna, Enna, Italy, ³G.F. Ingrassia Hospital, Palermo, Italy

Purpose: To evaluate the efficacy and long-term safety (up to 108 months) of treatment with Dienogest in patients with endometriosis.

Methods: **Patients** with pelvic chronic pain enrolled endometriosis-related were in this observational study from June 2012 to July 2021. The patients enrolled took Dienogest 2 mg as a single daily administration. Group B of long-term therapy patients (over 15 months) were compared with group A of short-term therapy patients (0–15 months). The effects of the drug on pain variation were assessed using the VAS scale and endometriomas dimensions through ultrasonographic evaluation. Furthermore, has been valuated the appearance of side effects and the effect of the drug on bone metabolism by performing MOC every 24 months in group B.

Results: 157 patients were enrolled. The mean size of the major endometrioma progressively decreased from 33.2 mm (29.4–36.9) to 7 mm (0–15.8) after 108 months of treatment. We found a significant improvement in dysmenorrhea, dyspareunia, dyschezia and non-cyclic

pelvic pain. As for the side effects, both groups complained menstrual alterations present in 22.9%. In 27.6% of group B, osteopenia was found. Group B had a higher percentage statistically significant of side effects such as headaches, weight gain and libido reduction compared to group A.

Conclusion: Long-term therapy with Dienogest has proven effective in controlling the symptoms of the disease and reducing the size of endometriomas, with an increase in the positive effects related to the duration of the intake and in the absence of serious adverse events. Study approved by the "Palermo 2" Ethics Committee on July 2, 2012 No. 16.

Reference: Maiorana A, Maranto M, Restivo V, Gerfo DL, Minneci G, Mercurio A, Incandela D. Evaluation of long-term efficacy and safety of dienogest in patients with chronic cyclic pelvic pain associated with endometriosis. Archives of Gynecology and Obstetrics. 2024 Feb;309(2):589-597.