

A Comparative Analysis of Metronidazole and Tinidazole for Treating Bacterial Vaginosis

Nehad J. AHMED ¹* & Menshawy A. MOHAMED ²

¹ *Department of Clinical Pharmacy, College of Pharmacy,
Prince Sattam Bin Abdulaziz University, Alkharj, Saudi Arabia*

² *Department of Medicinal Chemistry, College of Pharmacy,
Prince Sattam Bin Abdulaziz University, Alkharj, Saudi Arabia*

SUMMARY. Bacterial vaginitis is caused by an overgrowth of the bacteria naturally present in the vagina. Metronidazole is the basis of treatment for bacterial vaginosis, however, tinidazole and a few other medications have also been used successfully. The present study aimed to compare the efficacy of metronidazole and tinidazole in treating bacterial vaginosis. A search technique was created and implemented using PubMed. In the search, the phrases tinidazole, metronidazole, vaginitis, and efficacy were utilized. Five clinical trials were included in the analysis. About 59.93% (655/1093) of the patients who used metronidazole and 61.63% (705/1144) of the patients who used tinidazole were clinically cured. The p-value of the overall effects was not significant (0.85). Tinidazole is as effective as metronidazole for the treatment of bacterial vaginitis. So, tinidazole could be a better option to manage bacterial vaginitis as it has comparable efficacy and causes fewer side effects than metronidazole.

RESUMEN. La vaginitis bacteriana es causada por un crecimiento excesivo de bacterias presentes naturalmente en la vagina. El metronidazol es la base del tratamiento de la vaginosis bacteriana; sin embargo, también se han utilizado con éxito el tinidazol y algunos otros medicamentos. El presente estudio tuvo como objetivo comparar la eficacia del metronidazol y tinidazol en el tratamiento de la vaginosis bacteriana. Se creó e implementó una técnica de búsqueda utilizando PubMed. En la búsqueda se utilizaron las frases tinidazol, metronidazol, vaginitis y eficacia. Se incluyeron cinco ensayos clínicos en el análisis. Aproximadamente el 59,93% (655/1093) de los pacientes que usaron metronidazol y el 61,63% (705/1144) de los pacientes que usaron tinidazol se curaron clínicamente. El valor p de los efectos globales no fue significativo (0,85). El tinidazol es tan eficaz como el metronidazol para el tratamiento de la vaginitis bacteriana. Por tanto, el tinidazol podría ser una mejor opción para controlar la vaginitis bacteriana, ya que tiene una eficacia comparable y causa menos efectos secundarios que el metronidazol.

KEY WORDS: bacterial vaginitis, efficacy, metronidazole, tinidazole, treatment

* Author to whom correspondence should be addressed. *E-mail:* n.ahmed@psau.edu.sa