

Dequalinium chloride: a non-antibiotic alternative for the treatment of bacterial vaginosis

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Bacterial vaginosis is one of the most prevalent sexually transmitted infections (STI) of women of reproductive age with an incidence of 20-30% in women with complaints of discharge.¹ As per the criteria for diagnosis of bacterial vaginosis (BV), Amsel's criteria include a) vaginal discharge, b) fishy odour, c) clue cells on histo-pathology and d) alkaline vaginal pH of 4.5 and greater. Additional diagnosing techniques include gram-staining and Nugent score.²

Metronidazole and clindamycin are the first line for treating bacterial vaginosis and their cure rate is between 55 to 90%³, However, due to growing resistance against anti-microbials, another alternative dequalinium chloride, a broad-spectrum antiseptic, has demonstrated efficacy against bacterial vaginosis (BV) in multiple clinical trials.⁴ Dequalinium chloride works by absorbing into the cell surface membrane and permanently distorting its permeability, it disrupts the cell protein synthesising mechanism thus hindering its replication and it also causes denaturation and precipitation of cell nucleic material.

This multimodal action minimises the risk of bacterial resistance and it was also seen that it damages bacterial biofilm and impairs bacterial metabolism.⁴ Clinical trials have reported over 90% resolution of BV with dequalinium chloride by using dequalinium chloride and

it was also seen that Women using dequalinium chloride reported fewer vulvovaginal complaints compared to metronidazole and clindamycin.⁵

In conclusion, dequalinium chloride appears to be a superior alternative to conventional antibiotics for BV, offering higher efficacy, better tolerability, and fewer adverse effects. Its broad-spectrum activity against both Gram-positive and Gram-negative bacteria further reduces the likelihood of antimicrobial resistance, making it a promising non-antibiotic option for BV treatment.

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