OMIGANAN PENTAHYDROCHLORIDE: EVIDENCE FOR RETAINED OR ENHANCED ACTIVITY WHEN PRESENTED AS A GEL MATRIX

INTRODUCTION

OMIGANAN is a peptide antimicrobial being developed for topical use as an alternative to systemic treatments. It has demonstrated efficacy in many clinical trials. However, the potential for retained or enhanced activity has not been reported. The present study evaluated OMIGANAN for retained or enhanced activity in both gel and broth media. Potential for retained or enhanced activity is important since OMIGANAN powder is provided by the sponsor for topical applications. The results of this study indicate that OMIGANAN has retained or enhanced activity when presented as a gel matrix.

METHODS

Stability of OMIGANAN in gel matrix was determined by using freshly prepared OMIGANAN gel and ampules of OMIGANAN powder stored at room temperature for 1 year. OMIGANAN gel in ampules was compared with freshly prepared OMIGANAN gel stored in ampules and freshly prepared OMIGANAN gel stored for 1 year. In addition, stability of OMIGANAN was determined by comparing MIC values of OMIGANAN prepared in broth with MIC values of OMIGANAN prepared in gel.

RESULTS

MIC values were determined for OMIGANAN prepared in broth and gel media. MIC values were lower for OMIGANAN prepared in gel compared with broth. MIC values for OMIGANAN prepared in gel were lower than MIC values for broth for all tested strains. No change in potency was detected in the 1% OMIGANAN gel stored in ampoules for a year or more compared with freshly prepared 1% OMIGANAN gel.

CONCLUSIONS

OMIGANAN has retained or enhanced activity when presented as a gel matrix. This finding is important since OMIGANAN powder is available for topical applications. Future studies are needed to determine the mechanism of retained or enhanced activity.

SELECTED REFERENCES