Results

Pathogens identified

The majority of isolates (98.7%) were Staphylococcus aureus (MRSA) and MRSE. Of these, 78% were resistant to clindamycin (a criterion of Community-Associated MRSA, "CA-MRSA") and 45% were resistant to fluoroquinolones (a criterion of CA-MRSA). The MRSA isolates were divided into subgroups based on the presence of resistance genes to methicillin (MSSA) or oxacillin (MRSA, caesalitic). Among the MRSA isolates, 21% were resistant to clindamycin. MSSA isolates were further subdivided into genotypes based on the presence of specific antibiotic resistance genes. These subgroups were found to have different susceptibilities to antimicrobial agents.

Microbiological response to gepotidacin treatment

The microbiological response was assessed by monitoring changes in the MICs of the test organisms over time. Geotidacin was found to significantly reduce the MICs of the test organisms, indicating improved susceptibility to the drug. The MICs were measured in a standard broth microdilution assay using a variety of different concentrations to determine the optimal dose for each isolate.

Environmental variability of S. aureus isolates from lesion samples

An assessment of environmental variability of S. aureus isolates from lesion samples is shown in Table 5. The variability of S. aureus isolates was evaluated using the MIC and MIC50/MIC90 ratios for each isolate. The results indicated that the MICs of S. aureus isolates varied significantly among the different environments.

Conclusion

The results of this study demonstrate the efficacy and safety of gepotidacin in the treatment of S. aureus infections. The drug was found to reduce the MICs of the test organisms, indicating improved susceptibility to the drug. The MICs were measured in a standard broth microdilution assay using a variety of different concentrations to determine the optimal dose for each isolate.

References


Acknowledgements

This study was supported by a grant from GSK. The authors thank the research team for their assistance, including P. W. for patient assistance, and A. J. for technical assistance.