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Introduction

- Methicillin-resistant S. pseudintermedius (MRSP) are of increasing concern due to its recent spread amongst dog populations worldwide (Perreten et al., 2010).
- Limited treatment options are available for MRSP, thus alternative treatment is required to combat these multidrug-resistant microorganisms in the future.

Materials and Methods

- Prior to the study, 10 newly developed peptoids were tested for their in vitro activity against 50 clinical isolates of canine origin, irrespective of antibiotic resistance phenotypes.
- Two novel peptoid compounds were shown to have a rapid concentration-dependant antimicrobial effect on S. pseudintermedius.

Conclusions

- Two novel peptoid compounds were shown to have a rapid concentration-dependant effect against S. pseudintermedius of canine origin, irrespective of antibiotic resistance phenotypes.
- The rapid killing resembles the pharmacodynamics of antiseptics but the mechanism of action is unknown.
- The next step will be to test the effect and toxicity of topical formulations of the two compounds in vivo, for example in a mice skin infection model.

References


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