Bacteriophage therapy A possible new alternative for antibiotics

Aarya Gore¹, Surbhi Patel¹, Meenal Gulve¹
¹Department of Conservative Dentistry and Endodontics, MGV’s KBH Dental College and Hospital, Nashik, Maharashtra, India.

Commentary:
Antibiotics which can also be called “the magic bullets”, have manifested to be the most neoteric innovation of the last century. However, the injudicious use of antibiotics for various infections along with patient’s in compliance to follow the prescribed dosage had led to an increase in the development of resistance¹². Antibiotic resistance is the expanding hurdle that needs to be faced by dentists along with all other health care professionals. Therefore, the development of an eminently efficient regimen was observed to be essential. Enterococcus faecalis is an endodontic pathogen which has proven to be strenuous to get rid of the reason being it’s recalcitrant in nature, it is also observed to be the culprit for recurrent endodontic infections. The use of bacteriophages can be an effective regime against such recurrent infections. This therapy has shown to be supremely useful to kill multi drug-resistant bacteria and their biofilms. Phage therapy has numerous advantages like specificity, genetic mutations and they are easy to isolate from oral cavity³⁴.

One more advantage of phages is its multiplication in correlation with bacteria which makes its use a single shot⁵. The multiplication of phages is bacteria dependent, they shed off after the complete eradication of the bacteria⁶. The use of phage therapy against E. Faecalis is not quite explored. The isolation and identification of lytic bacteriophages to oral pathogens could be considered as an approach towards phage therapy of dental plaque and biofilms. Hence this poster reviews the scope in the development of bacteriophage therapy against biofilms.
References


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Corresponding Author:
Aarya Gore,
Department of Conservative Dentistry and Endodontics,
MGV’s KBH Dental College and Hospital,
Nashik, Maharashtra, India.
Email id: gore.aarya@gmail.com