



TRIPLE ANTIBIOTIC PASTE- PREPARATION AT CLINICAL CHAIR SIDE.

Dental Science

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KEYWORDS

INTRODUCTION

Triple antibiotic paste (TAP) containing metronidazole, ciprofloxacin and minocycline has been proposed as a root canal medicament due to its antimicrobial effects in endodontic regenerative procedures. It has been proven that mere mechanical instrumentation is not sufficient in making a bacteria-free area in canal system by self which is predictable considering the complex anatomies of the root canal space [1]. Certain disinfection procedures are required to be able to eliminate the microorganisms from the canal [2-5]. A suitable material for using as intra-canal medicament seems to be antibiotic. Triple antibiotic paste (TAP) containing metronidazole, ciprofloxacin and minocycline has been proposed as a root canal medicament due to its antimicrobial effects in endodontic regenerative procedures. [3-4]

Purpose of this review is to know the preparation of triple antibiotic paste manually as the commercially availability is still a long way.

PREPARATION AT CLINICAL SIDE:-

Accordingly Antibiotic 3 mix- Ratio 1:1:1
Ciprofloxacin 200mg, Metronidazole 400mg, Minocycline 100 mg., mixed with propylene glycol to obtain the smooth and creamy mix.

METHOD 1- SPATULATION:

In this method required quantity of Antibiotics Metronidazole 400mg, Ciprofloxacin 200mg, Minocycline 100mg, in the ratio 1:1:1 will be selected. The tablet form and granular form of medicine will be triturated in the mortar till it forms the smooth and fine powder. It is taken on a glass slab and in equal quantities side by side and mixed all three form of powder particles of antibiotic with Macrogol and Propylene glycol (MP) until it forms the smooth consistency paste. That can be carried through lentilospiral or with syringe into the root canal system.

METHOD 2- BY DOUBLE SYRINGE TECHNIQUE:

Use two 5ml syringes one filled with the powdered form of three antibiotics, which should be formed as described in method 1, the other is filled with the propylene glycol and Macrogol. The two syringes are joined together by the butterfly shaped cannula. The mixing is done by pumping action of both the syringes such that the liquid goes into other syringe and get mixed with powder and subsequently the mixture get pushed to the other syringe when activated the previous syringe. As a result the mixture will be obtained.

NEW METHODS

METHOD 3- TRITURATION:

The three measured antibiotic powdered form obtained as in method 1, is taken in a capsule of semi automatic amalgamator and appropriate quantity of propylene glycol and macrogol is used. The mixture is triturated in continuous motion in amalgamator for 60 seconds, the paste like consistency of mixture is obtained. This mixture can be used using lentilospiral into the canal.

METHOD 4- TEST TUBE AND GLASS ROD:

The three measured antibiotic powdered form is taken as in method 1 in test tube and appropriate quantity of propylene glycol and macrogol is used. The mixture is stirred well with the glass rod stirrer in continuous motion for 60 seconds till the paste like consistency of mixture is obtained. This mixture can be transferred into canal by syringe or lentilospiral.

CONCLUSION

The TAP has given a very promising results in disinfecting and healing the periapical lesions. The commercial availability may take some time

as pharmaceutical companies area in way of manufacturing state. Till that the chairside manual preparation is used in various regenerative endodontics procedures.

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