Research Article

Survey on Knowledge, Attitude and Practice of Antimicrobial Resistance among Dental Students

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ABSTRACT

The main aim of the study was to access the knowledge, attitude and practice of antimicrobial resistance among dental students. An antimicrobial is an agent that kills microorganisms or inhibits their growth. Antimicrobials can be grouped according to the microorganisms they act primarily against. They are ones which help in building up resistance. It is very important for students to be aware regarding the use and prescriptions of these agents. A quantitative, cross sectional study was conducted by preparing a questionnaire and was conducted among 106 dental students. This survey had questions that could access the knowledge, attitude and practice of antimicrobial resistance among them. The responses that could be given by the respondents where whether they 'Agree' or ' Disagree'. The results showed that there was a significant difference in attitude and practices between different levels of education.

Keywords: Antibiotics, Resistance, bacteria, antimicrobial resistance.

INTRODUCTION

The most common drugs that are used and misused in countries are the Antibiotics[1]. It developed a lot of advantages, it became evident rather soon after the discovery of penicillin that resistance developed quickly.Extra dosages or irrational consumption of antibiotics not only leads to the existence of bacterial stains but also it causes several adverse effects and reactions in our body.

The irrational use arises from the various economical factors, healthcare policies concerning about medical insurance, lack of physicians, concerns pertaining long term resistance and effect versus treating current symptoms, marketing of pharmaceuticals and antibiotics sale without prescription in some countries[2,3]. The basic step that can be taken towards building up antibiotic resistance could be awareness. This also includes the knowledge about the right drug to be prescribed at the right time with the appropriate dosage.

Many approaches are being made to control the spread. One of the approaches is to undertake various institutional and educational programs among the public sector, medical sectors about antibiotic resistance and its complications and regarding the steps which can prevent its development and spread.[4-6] Thus for the prudent use of these antibiotics it is very important for undergraduates to be educated about the proper use and dosage of these drugs.

MATERIALS AND METHODS

This study is a cross sectional, questionnaire based study. A questionnaire containing 18 questions which could access the knowledge and attitude of students about anti-microbial resistance were distributed to students. Students of Saveetha Dental College took up this Survey.

1. Are you aware of antimicrobial resistance?

a) Agree B) Disagree

2. antibiotics are safe to be prescribed

a) Agree b) Disagree

3. With more dosage the duration of the disease can be reduced

a) Agree b) Disagree

4. Skipping dosage doesn't affect in our day to day life

a) Agree b) Disagree

5. When you have cough, cold or fever the first drug to be taken is antibiotics

a) Agree b) Disagree

6. Suggest a solutions for developing anti-microbial resistance

7. Use of antimicrobials can lead to a solution for developing resistance

a) Agree b) Disagree

8. Bacteria are the agents which cause common cold

a) Agree b) Disagree

9. Development of antibiotic resistance has become a global issue

a) Agree b) Disagree

10. Antibiotics must be bought only with prescriptions

a) Agree b) Disagree

11. Taking antibiotics can be stopped as soon as you start feeling better

a) Agree b) Disagree

12. You can have left over antibiotics

a) Agree b) Disagree

13. If yes, you can use them at times when you need

a) Agree b)Disagree

14. Do you think antibiotics are resistant against viruses?

a) Agree b) Disagree

15. Antibiotics kills the bacteria that act on skin and the gut

a) Agree b) Disagree

16. Anti-microbial agents can cause imbalance in our own bacterial flora

a) Agree b) Disagree

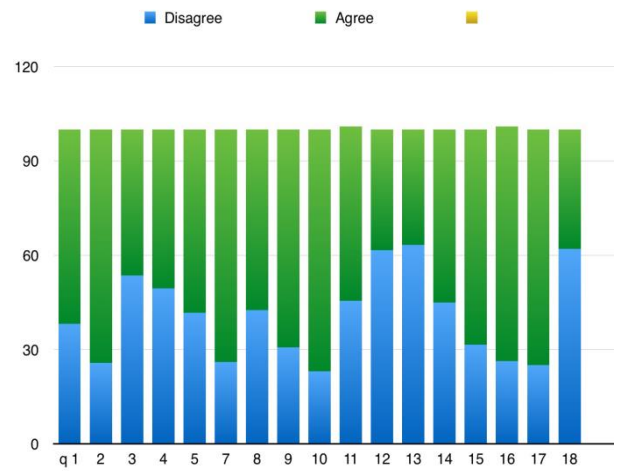
17. Recovery is speeded up with the use of antibiotics

a) Agree b) Disagree

18. Frequent intake of antibiotics will make you healthier

a) Agree b) Disagree

RESULTS



DISCUSSION

In the study it's shown that among 106 dental students, 61.9% of them were aware of what is antimicrobial resistance and its effects. 74.3 % of them also felt that antibiotics are safe drugs to be prescribed and are advantageous. 53.3% disagreed with the statement that the duration of the disease can be reduced by increasing the dosage. 50.5% feel that skipping dosage doesn't affect our day to day activities in any way. 58.3% agree with the fact that antibiotics are the first drug that should be prescribed when you get fever or cold. Several suggestions where given for developing antimicrobial resistance, maintenance of a clean environment, usage of appropriate doses and when required only, the complete course of the drug must be doneand practicing antibiotic stewardship. 74% stand in favour that antibiotics can lead to a solution for developing antimicrobial resistance. 57.4% say that bacterias are the reason for common cold. 69.3% agree that development of antimicrobial resistance is a global issue. 77% say that antibiotics must be bought only with prescriptions. 45.5% disagree that intake of antibiotics can be stopped as soon as you start feeling better.

Having left over antibiotics are not correct and 61.6% agree with it and usage of these left over antibiotics are harmful which is agreed by 63.3% of them. 55% feel that antibiotics are resistant against viruses. 68.4% strongly feel that antibiotics can kill the bacteria on the skin and gut.

73.7% feel that antimicrobial agents can cause an imbalance in our own bacterial flora. 75% stand in favour of the statement that recovery can be speeded up by the use of antibiotics. 62% disagree that frequent intake of antibiotics can't make them healthier.

CONCLUSION

This study provides a very important insight about the knowledge, attitude and practice of antimicrobial resistance amount dental students which is of prior importance .Also antibiotic usage and their ideas about their prescription , effects are efficiently studied.

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