ASSESSMENT OF DENTAL PATIENTS WITH ANTIBIOTICS USE AND HARMs

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Abstract

Background: Antibiotics have been used to treat infections and are usually prescribed for certain diseases by dentists. The increasing rate of antibiotic resistance among microorganisms, however, is a significant public health dilemma, particularly in the oral cavity. This has led to high-profile articles. Based upon inappropriate antibiotic prescribing and literature evidence of ineffective dentists’ prescription practices, appropriate actions must be taken to encourage rational prescription in order to reduce the growing incidence of antibiotic misuse. Aim: The study aim was to assess and evaluate the awareness and knowledge of dental patients with regards to antibiotic prescriptions in the dental service. Design setting and participants: Retrospective data from 30 patients were collected which was recommended for prospective data. A questionnaire was used to assess the antibiotics use awareness among dental patients. Results: The average total recorded knowledge was 52.6%. The Very Good, 24.8% Good, 16.8% Satisfactory, and 16.4 percent NO Knowledge marked 18.8 percent of respondents with excellent antibiotic knowledge. Most people knew the purpose of antibiotics given with a YES response of 84.4 percent to the question. Conclusion: Antibiotics and their resistance are variably known by the study population. One out of three persons has behavior that is considered risky in developing resistance to antibiotics. The dentists’ instructions were low despite the importance of clinical advice understood by the individual respondents.

Keywords: Antibiotics – Dental patients – Knowledge - Inappropriate prescribing

INTRODUCTION

In the treatment of orofacial infections, antibiotics are invaluable adjuncts. While not replacing definitive care, their wise use will shorten infection periods and mitigate related risks including infection spread in adjacent anatomical spaces or systemic implication. However, increasing microbial antibiotic resistance is a well-documented and severe worldwide problem [1,2]. The severity of infection is reduced by antibiotics, meaning "against life." [3] The inappropriate use of antibiotics in patients can, however, cause side effects from gastrointestinal disorders to fatal anaphylactic shock [3]. In addition, it increases resistant bacterial strains [4,5], medication and treatment prices [5], and also the emergence of new multidrug-resistant bacteria has increased alarmingly. An excessive use of antibiotics is a contributing factor. The World Health Organization defines "self-medication" as the selection and use of medicines by individuals for treating diseases or symptoms recognized by individuals.' [7] The provision of antibiotics and pharmaceutical marketing without prescription are important factors that lead to an increase in self-medication consumption [8,9].
The study aim was to assess and evaluate the awareness and knowledge of dental patients with regards to antibiotic prescriptions in the dental service. Moreover, this study aimed to determine whether they are complying with the recommended guidelines and whether the prescribing practices of GDPs lead to better use of antibiotics in dental practice.

LITERATURE REVIEW

One-third of hospital prescription antibiotics involve potential problems such as antibiotic prescription without proper test reevaluation, antibiotic prescription when not needed, or antibiotic prescription too long [10]. In patients with selected comorbidities to prevent serious remote site infections antibiotics are recommended before certain dental procedures. However, before dental visits, more than 80% of the antibiotics prescribed were unnecessary (e.g. for infection prophylaxis). An evaluation of the appropriateness of antibiotic prophylaxis prior to dental procedures was carried out in a retrospectively cohort study.

From 2011 to 2015, dental visits were related to medical and prescription claims between 2009 and 2015. U.S. patients with commercial dental insurance are present 14 days before antibiotic prophylactic with no hospitalization or extra-oral infection. Theresults revealed that, for 91 438 patients (median age, 63 years; interquartile range, 55-72 years; 57.2 per cent female) antibiotic prophylaxis was prescribed between 2011 and 2015. Most of the visits were diagnosed (70.2%) and/or preventive (58.8%).

A procedure that would require antibiotic prophylaxis in high-risk cardiac patients was used for 90.7 per cent of dental visits. 80.9% of antibiotic prophylaxis prescriptions were unnecessary prior to dental visits according to guidelines. [11].

Dentistry has found it difficult to standardize practice and assess the adequacy of antibiotic use in dental practice to have a lack of consent guidelines in the United States for the treatment of oral infections. In some studies, the results of dentistry interventions to improve antibiotic use were described as obstacles to adequate antibiotic use in lack of patient training and in compliance with the dental guidelines. Such studies are helpful, but do not explain the introduction of complete ASPs, mostly in the UK[12-14].

METHODOLOGY

Retrospective data from 30 patients were collected which was recommended for prospective data. It is also important to note that community services prescribe antibiotics less often than dental practices in particular. The prescribed antibiotic, the patient's sex and age, the dose, frequency and duration and the medical condition and reasons were reported behind the prescription.

A questionnaire was used to assess the antibiotics use awareness among dental patients.

For every patient, the prescriptions should include the following:
1. The appropriate antibiotic for the clinical case
2. The correct dosage
3. The correct frequency
4. The correct duration
5. Prescribed for the correct clinical indication and reason.

RESULTS

36 percent of the 30 patients were male, whereas 64 percent were female. The median age of these patients
was 33.6 years with a smaller 24 percentile and a higher 40. For the age of the patient surveyed, the standard deviation was 11.2

Five aspects of antibiotic knowledge among the study population were evaluated:
1. Antibiotics General Knowledge.
2. Knowledge of how to prescribe antibiotics.
3. Instructions given when prescribed by the doctor.
4. Knowledge of incomplete antibiotic dosage effects.
5. Knowledge about resistance to antibiotics.

The average total recorded knowledge was 52.6%. The Very Good, 24.8% Good, 16.8% Satisfactory, and 16.4 percent NO Knowledge marked 18.8 percent of respondents with excellent antibiotic knowledge. Most people knew the purpose of antibiotics given with a YES response of 84.4 percent to the question.

Respondents were asked to give them a set of instructions before being prescribed. Here 88.8% of respondents responded positively in receiving the full instructions and asked if they felt that incomplete antibiotic dosage would damage the body and if so what. 86% of respondents reported knowledgeable YES and 38, 4% said infection might develop because of incomplete use and 20.8% said it might not work properly next time. 18.8% responded without ideas, while 22% actually mentioned the resistance of the microbes.

DISCUSSION

In an era of increasing concern over the use and misuse of antibiotics, the specifics of antibiotic prophylaxis are being given greater attention.
While infection prevention is important, antibiotic resistance and adverse effects of excessive antibiotic use have to be addressed as an increasing problem. Although guidelines and recommendations are updated and constantly issued, they are not effective if practitioners do not keep them alert.

Debates have developed on the need for preventative antibiotics, including diabetes, systemic lupus erythematosus, and coronary artery stents and finishing stage renal illness, in patients with various different medical conditions. Specific dental procedure and the inherent risk for causing ineffective endocarditis have been investigated in other studies, which raise questions about procedures such as local anesthetic, orthodontic and periodontal testing. Reports actively refine guidelines, and press dentists for proper treatment to keep pace with the literature [15-17].

CONCLUSION

Antibiotics and their resistance are variably known by the study population. One out of three persons has behavior that is considered risky in developing resistance to antibiotics. The dentists’ instructions were low despite the importance of clinical advice understood by the individual respondents. Risky behaviors with increasing knowledge were unreduced, showing that an increase in knowledge is not necessarily a reduction in the risk of developing antibiotic resistance.

REFERENCES


