The Effect of the Prevalence of Covid-19 on Arbitrary Use of Antibiotics

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ABSTRACT

Background: Pathogens’ resistance to antibiotics is one of the major problems in Iran and worldwide, which has caused the healthcare system to face many problems dealing with infectious agents. Following the prevalence of Covid-19, people with mild symptoms have avoided seeking medical attention while preferring self-medication. This has exacerbated the crisis of antibiotic resistance. Here we aimed to investigate the effect of the prevalence of Covid-19 on the arbitrary use of antibiotics.

Materials & Methods: The data gathering tool was a researcher-made questionnaire. The study’s target population was the servants of the holy shrine of Fatima Masumeh (PBUH) and members of Vanak Park Complex located in Tehran, Iran. A total of 168 people participated in this research and the results were summarized and presented as percentages and graphs.

Results & Conclusion: 20.8% of people used antibiotics during the outbreak of Covid-19, of which 20% said that the outbreak of Covid-19 and quarantine prevented them from going to medical centers and self-medicating. In this case, it can be concluded that fear of coronavirus disease has affected the rate of referrals to medical centers and the intensification of self-medication and overuse of antibiotics, and finally the crisis of antibiotic resistance.

Keywords: Drug resistance, Resistance to antimicrobial drugs, Antibiotics, Coronavirus, Covid-19

Introduction

From the past decades until today, scientists have made great efforts to find various methods and drugs against microbes, but the resistance of pathogens to antibiotics has made it hard for the healthcare system to fight against them. Antibiotic resistance is a major crisis that has not been addressed and requires prompt action (1). Drug resistance means reducing the effectiveness of a drug in treating a disease caused by factors such as bacteria, parasites, viruses, fungi, and even cancer cells (2). Medication is an essential part of treatment (3). However, this does not mean that taking medication will have positive effects in any way. Medications can be both beneficial and health-threatening. Improper use of drugs due to lack of awareness can be dangerous (4). Statistical studies show that the amount of drug prescribed does not match the amount used; this indicates the abuse of the drug (5). One of the factors affecting the abuse of drugs is buying over-the-counter antibiotics in order to keep them at home. Sharing drugs with other people and prescribing drugs more than needed for patients is another factor playing an essential role in the misuse of antibiotics (6-9).

Iran is one of the largest consumers of antibiotics in the world due to the false culture of self-medication. Also, studies have shown that the amount of prescription drugs, especially by general practitioners, is too much, which leads to the storage of drugs at home and, eventually, the overuse of it. Misuse of drugs is also a significant problem in the world (5, 10).
In this study, the use of antibiotics during Covid-19 onset was assessed using a questionnaire to determine if the prevalence of coronavirus disease has affected the use of antibiotics.

**Materials and Methods**

In this short article, an online questionnaire was designed that included questions about demographic characteristics and antibiotic use and awareness of the side effects of the arbitrary use of antibiotics. It was then posted on social networks used by the servants of the holy shrine of Fatima Masoumeh (PBUH) located in the holy city of Qom, Iran, as well as members of the Vanak Park Complex located in Tehran, Iran. The results were concluded as percentages and graphs. In order to control the answers, two questions were used in the questionnaire. For instance, a question asked, *Did you take antibiotics without the doctor’s prescription before the coronavirus outbreak?*

Furthermore, to confirm the accuracy of the answers, there was another question asked, *Have you taken antibiotics without a prescription due to the prevalence of coronavirus and the inability to go to medical centers?*

If the person in question answers that he/she misused antibiotics before the corona outbreak period and in answer to the next question states that the abuse of antibiotics was due to the corona outbreak period, the answers will be inconsistently determining whether this individual was either self-medicating before. To elevate the eligibility of the answers, assuming that the study’s target is all Muslims, we told them that if they fill in the questionnaire accidentally or without honesty, it will cause an error in the results of the research, and Sharia forbids this.

**Results & Discussion**

During ten days, 168 people filled out a questionnaire, which included 152 servants of the holy shrine of Fatima Masoumeh (PBUH) and 16 members of Vanak Park Complex. Of these, 83.3% were female, and 16.7% were male. The age range of participants in this study was calculated from 15 to 67 years. Of these, 100% followed at least one of the recommendations, including wearing a mask, using gloves, and observing social distance.

Of the participants, 32.7% said they bought antibiotics just for home storage, and 38.1% of the participants used antibiotics without a doctor’s prescription before the outbreak of Covid-19. In comparison, 20.8% of the participants used antibiotics during the outbreak of the participants, of whom 20% stated that the outbreak of Covid-19 and quarantine prevented them from seeking medical treatment, and as a result they preferred self-medication. In this case, it can be concluded that the epidemic of coronavirus in Iran has increased the use of antibiotics. Due to the fear of leaving home and going to crowded places, especially medical centers that may be affected by a coronavirus, people stay at home and tend self-medication.

It is suggested that medical organizations and authorities reduce the phenomenon of self-medication, and face-to-face visits during virus outbreaks, by expanding virtual consultation systems with physicians and reducing the cost of such services, as well as introducing and teaching the use of this tool.

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**Conflict of Interest**

The authors declared no conflict of interest.
بررسی تأثیر شیوع بیماری کرونای مصرف بیوتفیک‌های آنتی‌بیوتیک

محمدحسین حیدرگوی

چکیده

زمینه و اهداف: مقاومت عوامل بیماری‌زا با آنتی‌بیوتیک‌ها یکی از عواملی است که باعث شده تیم درمان در مقاله با بررسی نمایش کننده این مسئله شده است.

مواد و روش: این پژوهش به صورت آزمایشگاهی و با استفاده از مطالعه فاقد تغییرات و در مجموع در تهران، ایران و آزمایشگاه‌های مختلف کشور انجام شد.

نتایج: با توجه به نتایج در نهایت، مصرف بیوتیک‌ها در معاملات درمانی به عنوان یکی از عوامل مؤثر در کنترل و بهبود مراحل درمان به‌طور کلی، مورد توجه قرار گرفت.

کلیدواژه‌ها: مقاومت بیوتیک، مصرف بیوتیک، کرونای ویروسی، درمان خودکار

مقدمه

همچونیا ندارد، این امر نشان‌دهنده مصرف خودرسانه دارو می‌باشد. این امر از عوامل مؤثر در مصرف خودرسانه دارو خودبستگی دانسته شده است که یکی از عوامل مؤثر در این امر فروش بدون نیاز به دارویی‌های ضد میکروبی و بدون نیاز به داروهای ضد میکروبی می‌باشد.

برای بررسی تأثیر بیماری کرونای مصرف بیوتیک‌ها، این مقاله با بررسی نشان‌دهنده این تأثیر به همکاری تنها یک گروه دانشجویی در تهران، ایران انجام شد.

در اینجا به همکاری تنها یک گروه دانشجویی در تهران، ایران انجام شد.

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روش پژوهش
در این مطالعه که، بر پایه نتایج طراحی شد، شامل سوالاتی از قبل مشخصات فردی و مصرف آنتی‌بیوتیک و آگاهی نسبت به عوارض مصرف آنتی‌بیوتیک، که گسترده در و شبکه‌های اجتماعی مصرف شده، همراه باعث پیش‌بینی افزایش مصرف ممکن می‌شود (س). واقع در شهر مقدس قم، مصرف و تهیه در صورت مراجعه و مدارک درمانی. در سوالی، که به مصرف بر اساس شرایط بیماری، خودسران و بیماری، قرار گرفت که در این مطالعه، با توجه به تحقیقات در این استادیشن، به منظور بررسی یافته‌های پیشنهادی و بی‌توجهی به روش‌های جدید در کنترل جامع این معضل به صورت اصلی، به کار برده شده است. مسئولیت این انتخاب و عدم توانایی در مراجعه به مراکز درمانی، آنتی‌بیوتیک را بدون نسبت‌برداری مصرف نموداده است. اگر فرد موردنظیر در جواب ذکر کند که قبلاً از دوران شیوع کرونای کرونا، مصرف خوددرمانی آنتی‌بیوتیک را داشته است، در جواب سوال بعد اظهار کننده، که مصرف خوددرمانی آنتی‌بیوتیک به علت دوران شیوع کرونای بوده، برای آنتی‌بیوتیک، به سوالی از این دوران همه، به خوددرمانی می‌پردازد. با این حال، بحثی با به دنبال آنچه فرم را به صحور تصادفی یا بدون صداقت بر کند، باعث ایجاد خطا در نتایج تحقیقات می‌شود و این امر از نظر شرعی می‌باشد. این نتایج به تحقیقات نموداده است.

یافته‌ها و بحث
در طی ۱۵۸ نفر بررسی‌شده ۱۶۸ نفر از خانم‌های مصرف حمام سال تا ۱۵۴ نفر از اعضای مجمع‌های مسکونی، که با پاسخ و نکته درباره مصرف آنتی‌بیوتیک در این دوران مورد ۱۶۷درصد موارد و ۱۶۴ درصد مصرف این کل‌زنده بیماری‌ها، در این اعضا به عنوان عوارض مصرف آنتی‌بیوتیک، به سوی ۱۵۰ درصد تأثیر کرونای پرداخت.
Referance

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