AWARENESS AND KNOWLEDGE OF HERPES LABIALIS AMONG DENTAL STUDENT

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ABSTRACT

BACKGROUND: Herpes simplex virus infection is responsible for a wide array of human disease. Recurrent infections with herpes labialis which is also known as cold sores are the most common manifestation of oral HSV-1 infection. Since a few researches exist on this material, this study was performed to evaluate the awareness and knowledge of herpes labialis among undergraduate dental student.

AIM: To determine the level of awareness and knowledge of herpes labialis and to recognize the characteristic of the disease.

METHODOLOGY: A questionnaire was given to be filled by the students. The study was conducted on a sample size of 400 students which includes first year, second year, third year and final year students. A simple self-developed questionnaire with 9 questions was given to the students to assess their awareness and knowledge on Herpes Labialis.

RESULTS: Most of the dental students, nearly 85% of them have the knowledge and awareness about herpes labialis and the treatment given for herpes labialis.

KEYWORDS: Herpes, labialis, infection, cold sore, awareness.

INTRODUCTION:

Recurrent infections with herpes labialis is also known as 'cold sores' or 'fever blisters', are the most common manifestation of oral HSV-1 infection.[1] Herpes simplex virus can cause infections ranging from asymptomatic and mild to life threatening presentations. Often this infection is clinically manifested by fever and painful aphtous stomatitis. [2-3] The common infection is usually acquired from direct contact with infected secretions from parents, caregivers, siblings, or playmates. Following symptomatic or asymptomatic primary infection, antibody and cellular immunity develops and lasts for life. Despite the fact, HSV infections occur in about 30-50% of those who have been infected in the past. Recurrences commonly occur in the form of cold sores or fever blisters that appear on the outer surface of the lips typically in the ermillion border, but also in the circumoral skin and nares. The recurrences range from rare episodes to monthly or even more frequent outbreaks per year. The largest reservoir of HSV is associated with herpes labialis, most commonly resulting from primary infection with HSV-1 during childhood.

Herpes simplex viruses are transmitted during close personal contact through the exchange of virus- containing secretions like vesicle fluid from active lesions, saliva, semen, and cervical fluid. The virus must contact mucosal surfaces or abraded skin, where it first replicates and initiates infection. Initial replication of the HSV-1 often occurs in the oropharyngeal mucosa and establishes latency in the trigeminal ganglia. Research has shown that recurrences of infections are spontaneous. They are associated with various triggers such as physical or emotional stress, fever, exposure to ultraviolet light, nerve or tissue damage, immunosuppressant, heat, cold, menses, concurrent infection and fatigue. Both herpes simples type 1 and herpes simples type 2 are responsible for primary oral herpes simplex infections, with HSV-1 accounting for 75-90% of the cases.

Dental students are frequently exposed to patients who suffer from recurrent Herpes Simplex Virus infections. Most of the dental students may not have acquired the antibodies. Therefore some students are at higher risk of acquiring primary infection. Due to the absence of objective data in the literature concerning the awareness and knowledge among undergraduate dental students, this study was conducted.

Hence this study aims to determine the level of awareness and knowledge of this infection and to recognize the characteristic of the disease.

MATERIALS AND METHOD:

This study was conducted among undergraduate students studying at Saveetha dental college. The study was conducted on a sample size of 400 students which includes first year, second year, third year and final year students. A simple self-developed questionnaire with 9 questions was given to the students to assess their awareness and knowledge on Herpes Labialis.

1. Have you ever heard about 'Herpes Labialis' ?
   a) yes b) no
2. If yes, how did you come to know?
   a) friends b) doctor c)books/tv
3. What is the other name of Herpes Labialis?
   a) cold sore b) chancre
   c)canker sore d) don't know
4. Herpes Labialis are caused by ?
   a) virus b) bacteria
   c) fungal d) don't know
5. Herpes Labialis can be transmitted through?
   a) tears b) saliva
   c) sexual intercourse d) don't know
6. If a person has cold sore, what do you think he or she should do to avoid transmission to other people?
   a) wash hands frequently
   b) avoid shaking hands
   c) avoid sexual intercourse
   d) don't know
7. Are you aware of treatment for Herpes Labialis?
   a) yes b) no c) don't know
8. If yes, what can be given to treat herpes labialis?
   a) antibacterial drugs
   b) antiviral drugs
   c) antifungal drugs
9. Are you interested in gaining more knowledge regarding herpes labialis?
   a) yes b) no

RESULTS:

From the obtained questionnaire, the results were checked and analysed statistically

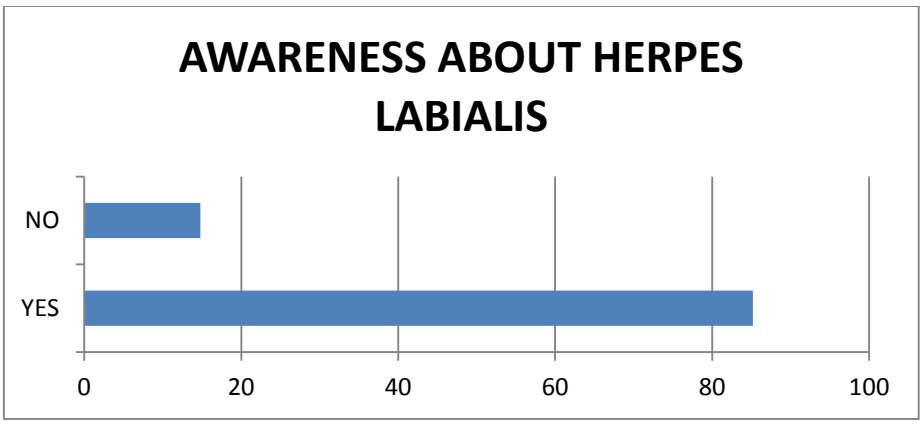

Figure 1: Awareness about herpes labialis among dental students.

The above chart shows the awareness about herpes labialis among dental students. 85% dental students were aware about herpes labialis whereas 15% students were not aware about the existence of herpes labialis. 62% of the students who had knowledge of herpes labialis had acquired it from doctor. Only 22% and 17% of these students acquired it from books/ tv and friends respectively.

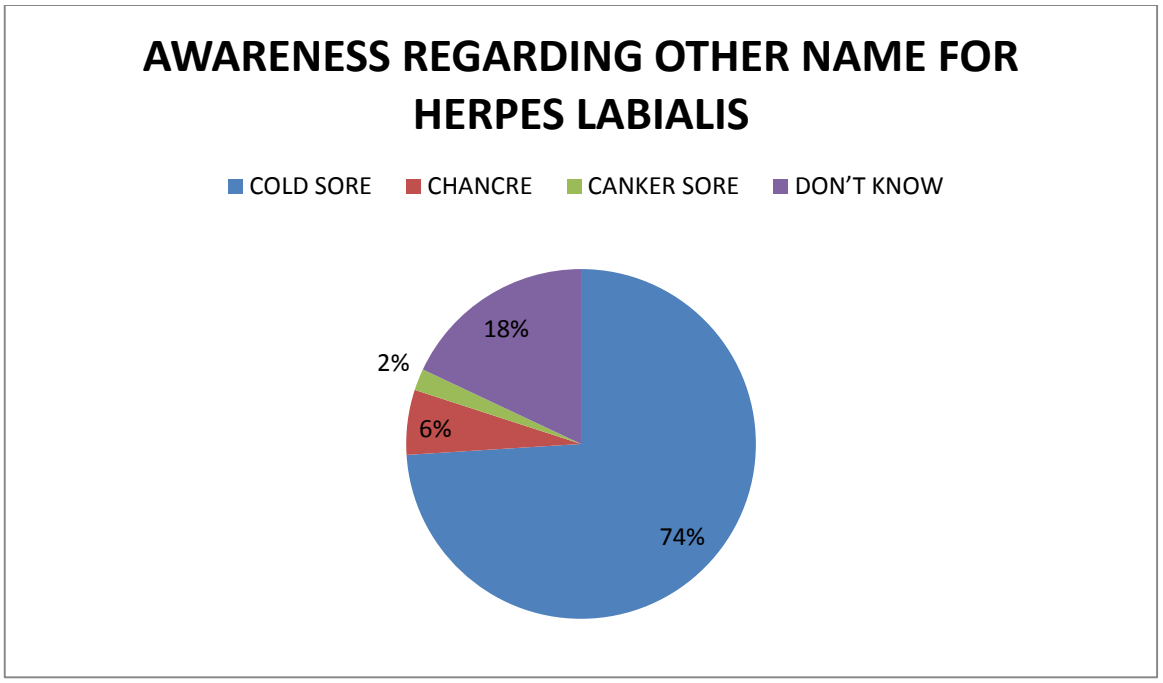

Figure 2: Awareness regarding other name for herpes labialis.

According to the pie chart above, most of the dental students were aware about the other name for herpes labialis. Almost 74% students who had some knowledge were able to rule out the correct answer - cold sore as another name for herpes labialis. Whereas 18% students were not aware about this.

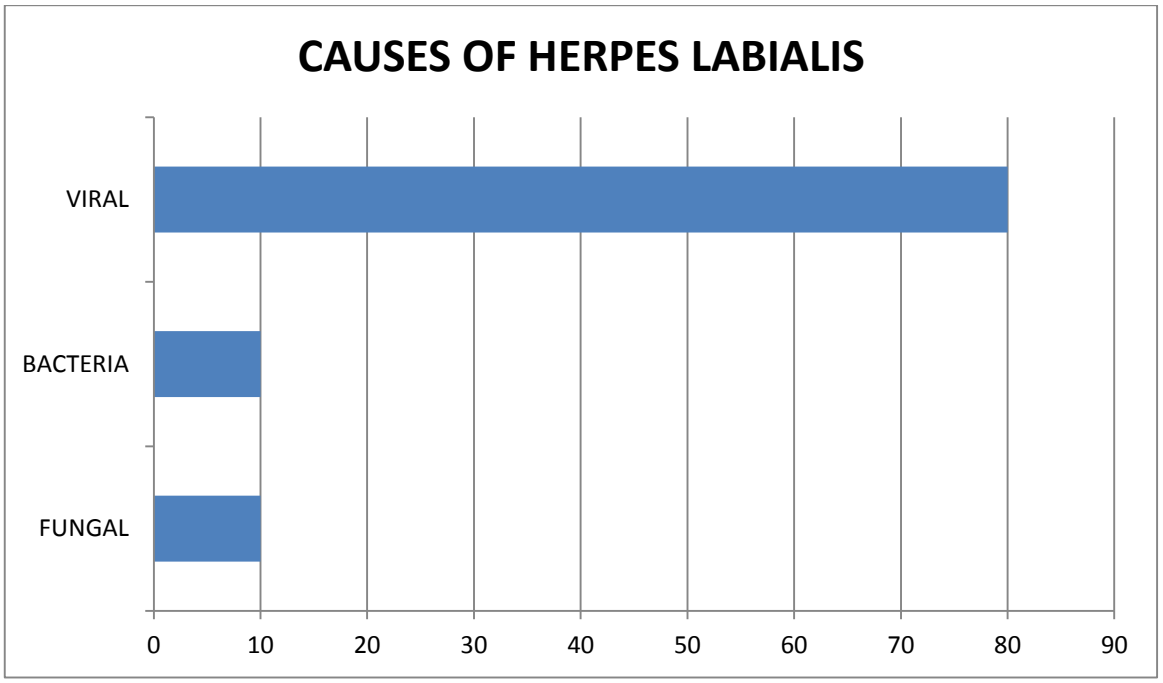

Figure 3: Awareness regarding causes of herpes labialis

The vast majority of the students, 90% knew that cold sores are caused by virus. Remaining 10% stated that herpes labialis is caused due to bacterial and fungal infection.

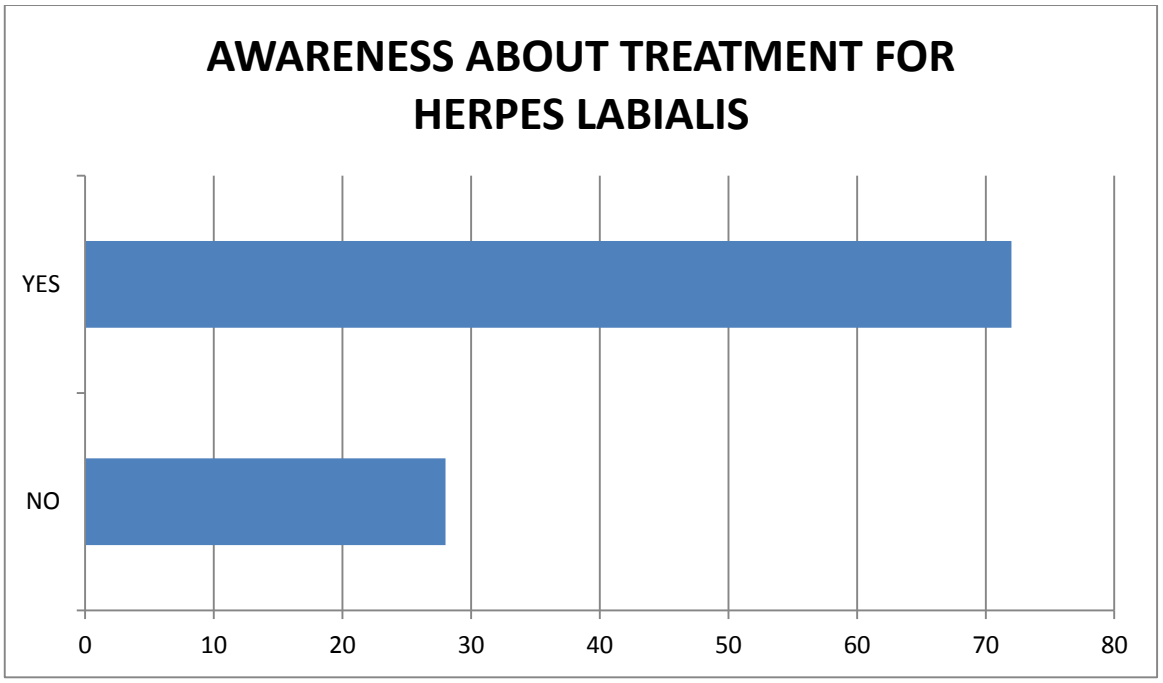

Figure 4: Awareness about treatment for herpes labialis.

About 72% dental students were aware about the the treatment for herpes labialis. 28% of the students were not aware about the treatment for herpes labialis.

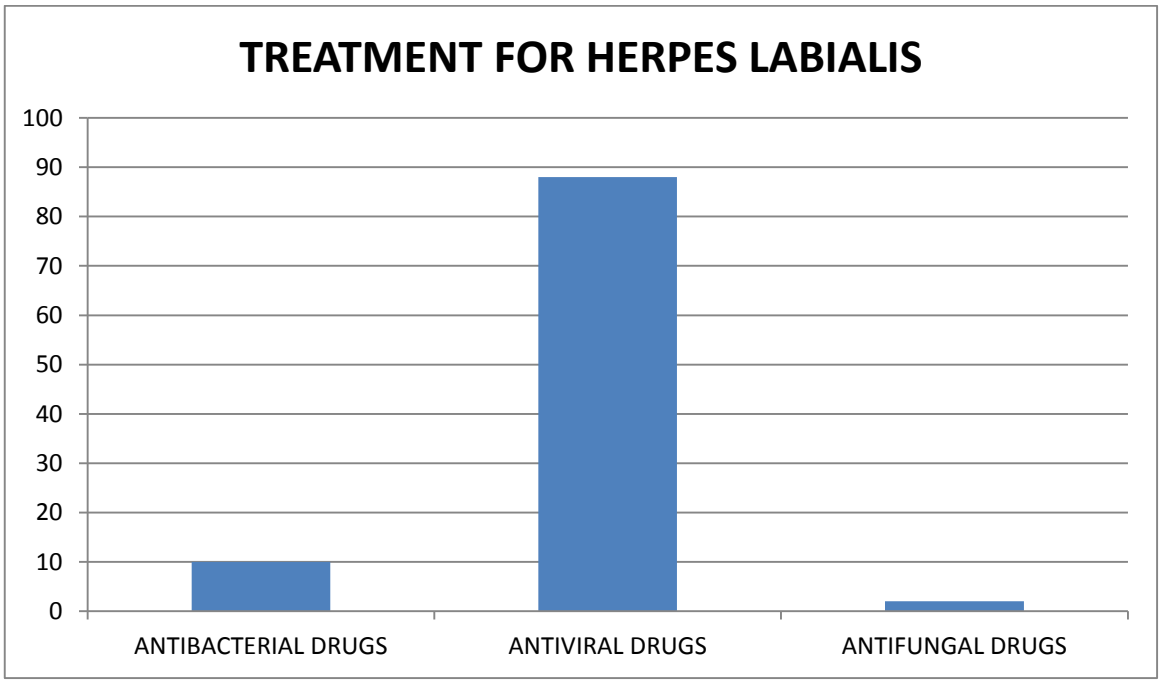

Figure 5: Awareness regarding treatment for herpes labialis.

88% dental students who had some knowledge and awareness about the treatment for herpes labialis stated antiviral drugs is the treatment of choice for herpes labialis. 10% students stated antibacterial drugs followed by 2% for antifungal drugs.

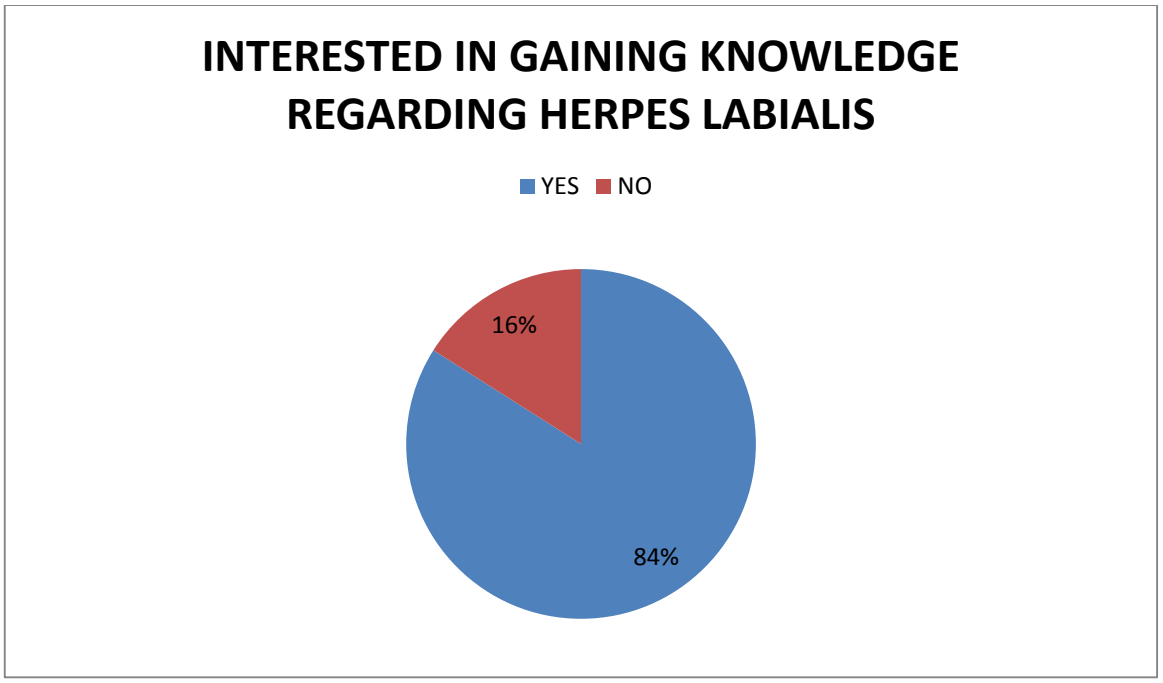

Figure 6: Interest among dental students in gaining knowledge regarding herpes labialis.

84% of dental students were interested in gaining more knowledge and awareness regading herpes labialis.

DISCUSSION:

The results of the present study demonstrate that herpes labialis is a well-known disease. The respondents in the survey consistently demonstrated significant level of knowledge about herpes labialis. It is quite noteworthy that only few students were aware that cold sores can be transmitted through saliva and that even fewer students were aware that they can be transmitted through contact with hands. This lack of specific knowledge is alarming because it can put student and the patients at risk for infections and can be especially problematic if a patient or the student is immunocompromised [4].

It is conceivable that the relative lack of knowledge concerning HSV infections is related to the fact that the herpes simplex virus is mostly latent and often does not cause any overt disease presentations. It could be that, in the case of other infectious and communicable diseases such as AIDS, attention is drawn to the disease because of the increased morbidity and mortality, which might affect students' assumptions about its transmissibility and the infectious nature of the disease. While this might increase the likelihood of taking more precautions when treating patients with these other infections, students should be made aware that the transmissibility of the herpes simplex virus is far more likely [5-7]. According to Miller et al [8], dental students need to be aware of the research that demonstrated the risk of transmission of HSV in dental clinics [8], as well as the findings that the incidence of herpetic whitlow was found to be higher in dental personnel than the general population which was found in the study conducted by Manzella et al and Rowe et al [9,10]. In a research conducted by Richards et al [11], they stated that the students should be made aware that certain dental materials, notably acrylic monomer, chloroform, and orange solvent, all rendered latex gloves permeable to HSV. While there is conflicting evidence concerning the viability of HSV virus after disinfection [12], it is crucial to inform students about the findings by Epstein et al., who recovered infectious HSV virions for up to two hours from door handles that were inoculated with HSV-1 in saliva or water [13], and that HSV-1 also survived in a patient's dental chart for several hours according to study conducted by Thomas et al[14]. Dental educators need to use these research findings as incentives to ensure that all future oral health care providers are educated comprehensively about these seemingly innocuous infections and the problems they can cause.

In a study conducted by Preetha et al [15], it was stated that the dental hygienist were more knowledgable than the dental students about the transmission and prevention of the transmission of the virus. They also stated that if the students had a more comprehensive understanding of the transmission process, they might become aware that viral shedding and the transmission of a virus can occur even after healing through contact with secretions.

CONCLUSION:

Not all students had the knowledge they needed to provide the best possible care for patients if either they or the patient had a cold sore; with an increase in knowledge may come an increase in apprehension about treating patients with cold sores. As the model of humanistic education suggests [16], only by increasing knowledge, raising awareness for the issues involved, and engaging the students in concrete skills training can we assume that they gain a true understanding of the issues, develop solid expertise when providing care, and will show a genuine commitment to providing the best possible care for their patients in the future.

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