Antiviral, Anaesthetic and Antipyretic Drugs in the Management of Herpes Labialis

Karishma Desai, Jayanth Kumar*
Department of Oral Medicine and Radiology, Saveetha University, Chennai, India.

ABSTRACT

INTRODUCTION
Herpes labialis, commonly known as cold sores, is a type of infection by the herpes simplex virus that affects primarily the lips. Symptoms typically include a burning pain followed by small blisters or sores. The first attack may also be accompanied by fever, sore throat, and enlarged lymph nodes.

AIM
The main aim of this study was to evaluate the antiviral, anaesthetic and antipyretic drugs used in the management of Herpes labialis.
Materials and method:
The study was undertaken in a university setting. The data was collected from June 2019 - Feb 2021 cases out of which only 110 patients with Herpes labialis were included for the study. Data was statistically analysed using SPSS and frequency analysis followed by chi square analysis was done which is used to compare and correlate the data with the distribution.

RESULT
A total of 110 patients were included. About 52.29 % are males and 47.71 % are females. The topical antiviral acyclovir was used by 92.66 % of people and systemic antiviral acyclovir is used by 51.38 %, the topical anaesthetic lidocaine gel was used by 44.95 % of people, systemic antipyretic paracetamol was used by 50.46 %.

CONCLUSION
This study with all the limitations concludes that the topical antivirals were used in the majority of the patients along with systemic antipyretic. Topical anaesthetics were not used commonly in Herpes labialis as pain is not a common presenting complaint.

KEYWORDS
Herpes labialis, Blisters, Acyclovir, Paracetamol, innovative technique, novel method.

Corresponding Author:

Jayanth Kumar, Department of Oral Medicine and Radiology, Saveetha University, Chennai, India;

Email: doctorjayanth@gmail.com

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INTRODUCTION

Herpes labialise is a typical skin infective condition which is proceeding with worldwide general medical issues for which different types of treatment had insignificant effect around the world, which is brought about by HSV-1. The virus frequently infects human beings, causing a range of diseases from mild uncomplicated mucocutaneous infection to those that are life threatening. Repetitive scenes of herpes labialis, otherwise called mouth blisters, can be successive, excruciating, durable and distorting for patients.[1,2] The most widely recognized type of disease with this infection, essential gingivostomatitis (the antecedent of intermittent HSL contamination), generally happens in preschool or kindergarten kids, teenagers and youthful grown-ups.[3,4] The patient may experience fever, loss of appetite and malaise, along with various intraoral vesicles that immediately burst, leaving painful ulcerations.[5] Children may become dehydrated due to the pain associated with swallowing. There are two kinds of antivirals for the treatment of herpes labialis, skin and oral, which are accessible over the counter or as a remedy as it were. Because of this epidemiologic move, it is getting more normal for the primary infection of herpes to spread through direct contact.[6,7]

The primary disease with HSV-1 is regularly asymptomatic. In case, when side effects do occur, children are present with herpetic stomatitis, followed by fever and with small blisters and ulcers (2 to 10 mm) in the front of and around the mouth, on the tongue, and on the lips.[8] Adults are present with sore throat and cervical lymph node enlargement resembling the infectious mononucleosis. Relapses are characterized by burning skin rash on the lips and around the mouth (papules, vesicles,and crusts).[9] Effective treatments for oral HSV diseases can be separated into palliative, preventive and antiviral classes. Palliative topical agents accessible over the counter (OTC) usually contain the anaesthetic benzocaine and are beneficial in reducing the pain related to oral HSVinfections.[10] Palliative topical agents accessible by prescription, for example, lidocaine gel 2 %, viscous lidocaine 2 % or combinations of topical anaesthetic with coating agents + / - diphenhydramine (e.g., magic mouthwash) may bear the cost of patients more relief contrasted with OTC topical anaesthetic preparations.

The topical antiviral agents that are most normally prescribed to treat HSV includes Acyclovir 5 % cream, Penciclovir 1 % cream and Docosanol 10 % cream. Acyclovir is a nucleoside analogue of guanosine with a specific affinity for thymidine kinase (TK), which is necessary for activation of acyclovir, in virus infected cells.[11,12] Acyclovir is a potent inhibitor of viral DNA synthesis and prevents viral replication. Penciclovir is an acyclic guanosine derivative with a similar antiviral spectrum as acyclovir.

Our team has extensive knowledge and research experience that has translated into high quality publications.[13 – 32] The main aim of this study is to know about antivirals, anaesthetic and antipyretic drugs having faster relief in the management of Herpes labialis.

MATERIALS AND METHODS

This study is based on the management of HSV of the patients. The study was undertaken in a university setting. The data from DIAS was collected from June 2019 - Feb 2021 cases out of which only 110 patients with Herpes labialis were included for the study. Data was statistically analysed using SPSS and frequency analysis followed by chi square analysis was done which is used to compare and correlate the data with the distribution.

RESULTS

A total of 110 patients were included. About 52.29 % are males and about 47.71 % are females. The topical antiviral acyclovir was used by 92.66 % of people. The systemic antiviral acyclovir is used by 51.38 %. The topical anaesthetic Benzydamine was used by 3.64 % and lidocaine gel was used by 44.95 % of people. Systemic antipyretic paracetamol was used by 50.46 %. With the chi square test, the correlation between the gender and the topical antiviral acyclovir, the P value is 0.380, $P > 0.05$, statistically insignificant (Figure 1). With the chi square test, the correlation between the gender and the systemic antiviral acyclovir, the P value is 0.546, $P > 0.05$, statistically insignificant (Figure 2). With the chi square test, the correlation between the gender and the topical anaesthetic, the P value is 0.354, $P > 0.05$, statistically insignificant (Figure 3). With the chi square test, the correlation between the gender and the systemic antipyretic, the P value is 0.174, $P > 0.05$, statistically insignificant (Figure 4).

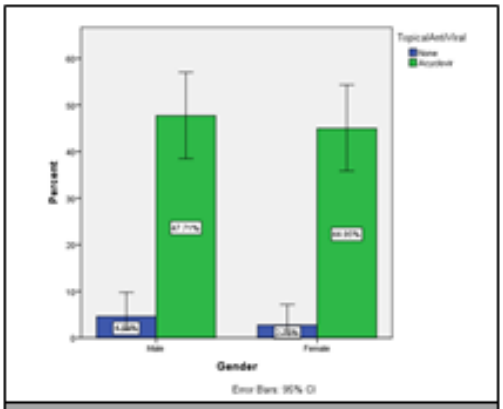

Figure 1. The graph shows the association between the gender and topical antiviral. The X axis represents the gender of the participants and the Y axis represents the percentage of the topical antiviral used. In this graph, the green color represents Acyclovir and blue color represents none of the drugs used. The topical antiviral Acyclovir is prescribed for the maximum number of the patients of 47.71%. Pearson's chi square test, P value is 0.380, P >0.05, statistically insignificant.

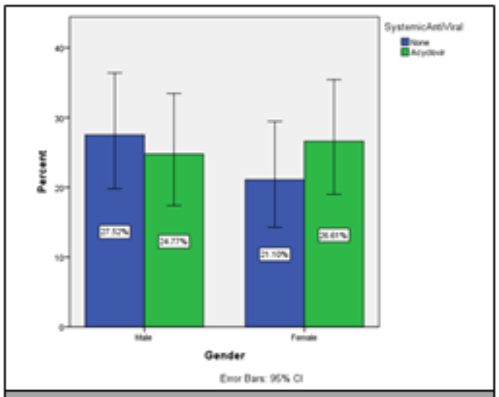

Figure 2. The graph shows the association between the gender and systemic antivirals. The X axis represents the gender of the participants and the Y axis represents the percentage of the systemic antiviral used. In this graph, the green color represents Acyclovir and blue color represents none of the drugs used. The systemic antiviral Acyclovir is prescribed for the maximum number of the patients of 26.61%. Pearson's chi square test, P value is 0.546, P >0.05, statistically insignificant.

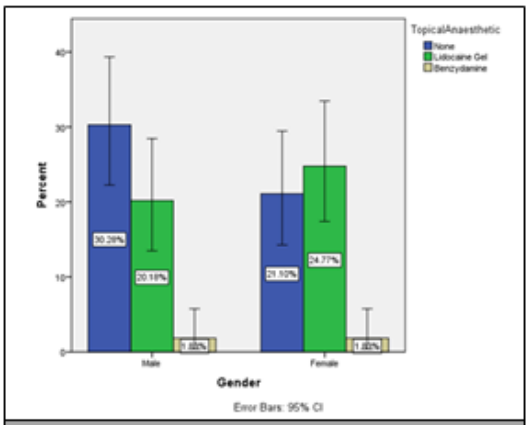

Figure 3. The graph shows the association between the gender and topical anaesthetic. The X axis represents the gender of the participants and the Y axis represents the percentage of the topical anaesthetic used. In this graph, the green colour represents lidocaine gel and blue colour represents none of the drugs used and the yellow colour indicates Benzamine. The topical anaesthetic lidocaine gel is prescribed for the maximum number of the patients of 24.77%. Pearson's chi square test, P value is 0.354, P >0.05, statistically insignificant.

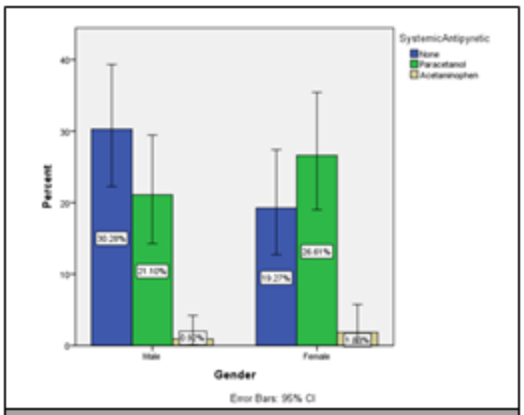

Figure 4: The graph shows the association between the gender and systemic antipyretic. The X axis represents the gender of the participants and the Y axis represents the percentage of the systemic antipyretics used. In this graph, the green colour represents paracetamol and yellow colour represents the acetaminophen and blue colour represents none of the drugs used. The systemic antipyretic paracetamol is prescribed for the maximum number of the patients by 28.44%. Pearson's chi square test, P value is 0.174, P >0.05, statistically insignificant.

DISCUSSION

Similar to the case with most disease processes, HSV infections are com-monly treated with the principal

clinical sign or side effects. This type of in-termittent therapy is named epi-sodic and focuses on management of chronic and clinically quiet illness. Although the treatment approaches utilized for oral and genital HSV infection are more similar than others, randomized controlled trials (RCT) have uniformly examined these diseases sepa-rately. In moderate and severe cases, antiviral treat- ment is often recommended for un- complicated episodes of primary oral herpes in healthy patients.

Chen et al. performed a systematic survey and analysis to assess the evaluation of nucleoside antiviral medications for the treatment of herpes labialis. They included 16 distributions for their survey that includes both oral and topical treatment. Oral and topical antivirals decreased the disease course and impeded sore progression. The only difference among oral and skin treatments was a decrease in the healing session of all lesions when utilizing oral medication.[33] Rosa et al. published a review on 5 % acyclovir–1 % hydrocortisone cream contrasted with placebo treatment for herpes labialis treatment. Their meta-analysis showed that early treatment with 5 % acyclovir–1 % hydrocortisone was helpful.[34] In our current study, it is observed that Acyclovir which is topical antivirals, was very much effectively used for HSV. The topical anaesthetic is used in case of pain and fever during the infections. Thus, for the management of recurrent herpes labialis topical antivirals acyclovir offers an effective and acceptable alternative to the un- proved home remedies currently attempted.

Some limitations of this study were that it was retrospective in nature, analyses just examinations that have been recently distributed by others, and doesn't tentatively look at the effectiveness of the treatment. Moreover, there were a few studies that met the inclusion criteria for penciclovir and docosanol; the greater part of the studies utilized acyclovir. This study didn't explore the impact of oral FDA-approved antivirals.

CONCLUSION

It is well known that, not at all like zoster lesion (shingles), most immunocompetent patients who develop repetitive herpes labialis sores have mild side effects and the sores heal without sequelae, even without accepting fundamental or topical treatment. This study with all the limitations concludes that the topical antiviral was used in the majority of the patients along with systemic antipyretic. Topical anaesthetics were not used commonly in Herpes labialis as pain is not a common presenting complaint.

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