

World Journal of *Clinical Cases*

World J Clin Cases 2023 March 16; 11(8): 1669-1887



REVIEW

- 1669** Understanding the multifaceted etiopathogenesis of foot complications in individuals with diabetes
Matijević T, Talapko J, Meštrović T, Matijević M, Erić S, Erić I, Škrlec I

MINIREVIEWS

- 1684** Diabetic foot ulcer: A comprehensive review of pathophysiology and management modalities
Raja JM, Maturana MA, Kayali S, Khouzam A, Efevbokhan N
- 1694** Isoperistaltic *vs* antiperistaltic anastomosis after right hemicolectomy: A comprehensive review
Symeonidis D, Karakantas KS, Kissa L, Samara AA, Bompou E, Tepetes K, Tzovaras G
- 1702** Evolving paradigm of thrombolysis in pulmonary embolism: Comprehensive review of clinical manifestations, indications, recent advances and guideline
Ochani RK, Aibani R, Jatoi HN, Anwar M, Khan SA, Ratnani I, Surani S
- 1712** Corneal endothelial cells and acoustic cavitation in phacoemulsification
Chen K, Xu WY, Sun SS, Zhou HW
- 1719** Modern blepharoplasty: From bench to bedside
Miotti G, Zeppieri M, Pederzani G, Salati C, Parodi PC
- 1730** Pregnancy and medications for inflammatory bowel disease: An updated narrative review
Akiyama S, Steinberg JM, Kobayashi M, Suzuki H, Tsuchiya K
- 1741** Pathogenesis, clinical manifestations, diagnosis, and treatment progress of achalasia of cardia
Li MY, Wang QH, Chen RP, Su XF, Wang DY

ORIGINAL ARTICLE

Retrospective Study

- 1753** Patients with hepatocellular carcinoma that die during the first year of liver transplantation have high blood sFasL concentrations
Lorente L, Rodriguez ST, Sanz P, González-Rivero AF, Pérez-Cejas A, Padilla J, Díaz D, González A, Martín MM, Jiménez A, Cerro P, Portero J, Barrera MA

Prospective Study

- 1761** Epidemiological and clinical characteristics of COVID-19 in a Brazilian public hospital
Pinheiro FD, Lopes LW, Dórea RSDM, Araújo GRL, Silva FAFD, de Brito BB, Cordeiro Santos ML, Júnior GMS, de Lorenzo Barcia MTA, Marques RA, Botelho AB, Dantas ACS, Costa DT, Teixeira AF, Souza CL, Marques LM, Campos GB, Oliveira MV, de Magalhães Queiroz DM, Freire de Melo F

CASE REPORT

- 1771** Pediatric acute heart failure caused by endocardial fibroelastosis mimicking dilated cardiomyopathy: A case report
Xie YY, Li QL, Li XL, Yang F
- 1782** Extensively infarcted giant solitary hamartomatous polyp treated with endoscopic full-thickness resection: A case report
Ye L, Zhong JH, Liu YP, Chen DD, Ni SY, Peng FQ, Zhang S
- 1788** Combined hamartoma of the retina and retinal pigment epithelium: A case report
Ren Q, Han N, Zhang R, Chen RF, Yu P
- 1794** Testicular pain originating from lumbar disc degeneration: A case report
Yan XJ, Wu B, He X, Tian ZK, Peng BG
- 1799** Glucocorticoid-induced thrombotic microangiopathy in paroxysmal nocturnal hemoglobinuria: A case report and review of literature
Yang XD, Ju B, Xu J, Xiu NN, Sun XY, Zhao XC
- 1808** Giant juvenile fibroadenoma in a 14-year old Chinese female: A case report
Wang J, Zhang DD, Cheng JM, Chen HY, Yang RJ
- 1814** A complementary comment on primary hepatic angiosarcoma: A case report
Gulmez AO, Aydin S, Kantarci M
- 1823** Primary membranous nephrotic syndrome with chylothorax as first presentation: A case report and literature review
Feng LL, Du J, Wang C, Wang SL
- 1830** Continuous positive airway pressure for treating hypoxemia due to pulmonary vein injury: A case report
Zhou C, Song S, Fu JF, Zhao XL, Liu HQ, Pei HS, Guo HB
- 1837** False positive detection of serum cryptococcal antigens due to insufficient sample dilution: A case series
Chen WY, Zhong C, Zhou JY, Zhou H
- 1847** Lactation breast abscess treated with Gualou Xiaoyong decoction and painless lactation manipulation: A case report and review of literature
Jin LH, Zheng HL, Lin YX, Yang Y, Liu JL, Li RL, Ye HJ
- 1857** Treatment of a large area perioral viral herpes infection following noninvasive ventilation: A case report
Tang AM, Xu JY, Wang R, Li YM
- 1862** Gastroparesis after video-assisted thoracic surgery: A case report
An H, Liu YC
- 1869** Hyperlactemia associated with secondary hepatocellular carcinoma resection in relation to circulation stability and quality of recovery: A case report
Meng Y, Pei HS, Yu JJ

- 1878** Sclerosing odontogenic carcinoma of maxilla: A case report

Soh HY, Zhang WB, Yu Y, Zhang R, Chen Y, Gao Y, Peng X

ABOUT COVER

Editorial Board Member of *World Journal of Clinical Cases*, Zaza Demetrashvili, FACS, FICS, MD, PhD, Professor, Department of Surgery, Tbilisi State Medical University, Tbilisi 0177, Georgia. zdemetr@yahoo.com

AIMS AND SCOPE

The primary aim of *World Journal of Clinical Cases* (WJCC, *World J Clin Cases*) is to provide scholars and readers from various fields of clinical medicine with a platform to publish high-quality clinical research articles and communicate their research findings online.

WJCC mainly publishes articles reporting research results and findings obtained in the field of clinical medicine and covering a wide range of topics, including case control studies, retrospective cohort studies, retrospective studies, clinical trials studies, observational studies, prospective studies, randomized controlled trials, randomized clinical trials, systematic reviews, meta-analysis, and case reports.

INDEXING/ABSTRACTING

The WJCC is now abstracted and indexed in Science Citation Index Expanded (SCIE, also known as SciSearch®), Journal Citation Reports/Science Edition, Current Contents®/Clinical Medicine, PubMed, PubMed Central, Scopus, Reference Citation Analysis, China National Knowledge Infrastructure, China Science and Technology Journal Database, and Superstar Journals Database. The 2022 Edition of Journal Citation Reports® cites the 2021 impact factor (IF) for WJCC as 1.534; IF without journal self cites: 1.491; 5-year IF: 1.599; Journal Citation Indicator: 0.28; Ranking: 135 among 172 journals in medicine, general and internal; and Quartile category: Q4. The WJCC's CiteScore for 2021 is 1.2 and Scopus CiteScore rank 2021: General Medicine is 443/826.

RESPONSIBLE EDITORS FOR THIS ISSUE

Production Editor: *Hua-Ge Yin*; Production Department Director: *Xu Guo*; Editorial Office Director: *Jin-Lei Wang*.

NAME OF JOURNAL

World Journal of Clinical Cases

ISSN

ISSN 2307-8960 (online)

LAUNCH DATE

April 16, 2013

FREQUENCY

Thrice Monthly

EDITORS-IN-CHIEF

Bao-Gan Peng, Jerzy Tadeusz Chudek, George Kontogeorgos, Maurizio Serati, Ja Hyeon Ku

EDITORIAL BOARD MEMBERS

<https://www.wjgnet.com/2307-8960/editorialboard.htm>

PUBLICATION DATE

March 16, 2023

COPYRIGHT

© 2023 Baishideng Publishing Group Inc

INSTRUCTIONS TO AUTHORS

<https://www.wjgnet.com/bpg/gerinfo/204>

GUIDELINES FOR ETHICS DOCUMENTS

<https://www.wjgnet.com/bpg/GerInfo/287>

GUIDELINES FOR NON-NATIVE SPEAKERS OF ENGLISH

<https://www.wjgnet.com/bpg/gerinfo/240>

PUBLICATION ETHICS

<https://www.wjgnet.com/bpg/GerInfo/288>

PUBLICATION MISCONDUCT

<https://www.wjgnet.com/bpg/gerinfo/208>

ARTICLE PROCESSING CHARGE

<https://www.wjgnet.com/bpg/gerinfo/242>

STEPS FOR SUBMITTING MANUSCRIPTS

<https://www.wjgnet.com/bpg/GerInfo/239>

ONLINE SUBMISSION

<https://www.f6publishing.com>

Treatment of a large area perioral viral herpes infection following noninvasive ventilation: A case report

A-Mao Tang, Jia-Ying Xu, Rong Wang, Yi-Min Li

Specialty type: Health care sciences and services

Provenance and peer review:

Unsolicited article; Externally peer reviewed.

Peer-review model: Single blind

Peer-review report's scientific quality classification

Grade A (Excellent): 0
Grade B (Very good): 0
Grade C (Good): C
Grade D (Fair): D
Grade E (Poor): 0

P-Reviewer: Amlak BT, Ethiopia;
Chiu H, Taiwan

Received: December 11, 2022

Peer-review started: December 11, 2022

First decision: January 9, 2023

Revised: January 14, 2023

Accepted: February 22, 2023

Article in press: February 22, 2023

Published online: March 16, 2023



A-Mao Tang, Jia-Ying Xu, Rong Wang, Department of Digestion, The Affiliated Hangzhou First People's Hospital, Zhejiang University School of Medicine, Hangzhou 310000, Zhejiang Province, China

Yi-Min Li, Department of Nursing, The Affiliated Hangzhou First People's Hospital, Zhejiang University School of Medicine, Hangzhou 310006, Zhejiang Province, China

Corresponding author: Yi-Min Li, MBBS, Chief Nurse, Department of Nursing, The Affiliated Hangzhou First People's Hospital, Zhejiang University School of Medicine, No. 261 Huansha Road, Shangcheng District, Hangzhou 310006, Zhejiang Province, China. hlb54316@163.com

Abstract

BACKGROUND

Alpha herpesvirus belongs to the Herpesviridae family and has large, monopartite double-stranded linear DNA. It mainly infects the skin, mucosa, and nerves, and can affect various hosts, including humans and other animals. Here, we present a case of a patient seen by the gastroenterology department at our hospital who experienced an oral and perioral herpes infection following treatment with a ventilator. The patient was treated with oral and topical antiviral drugs, furacilin, oral and topical antibiotics, local epinephrine injection, topical thrombin powder, and nutritional and supportive care. A wet wound healing approach was also implemented with good response.

CASE SUMMARY

A 73-year-old woman presented to the hospital with a chief complaint of "abdominal pain for 3 d with dizziness for 2 d." She was admitted to the intensive care unit for septic shock and spontaneous peritonitis secondary to cirrhosis and was given antiinflammatory and symptomatic supportive treatment. A ventilator was used to assist breathing for acute respiratory distress syndrome, which developed during her admission. A large area of herpes infection appeared in the perioral region 2 d following noninvasive ventilation. The patient was transferred to the gastroenterology department, at which time she had a body temperature of 37.8 °C and a respiratory rate of 18/min. The patient's consciousness was intact, and she no longer had abdominal pain or distension, chest tightness, or asthma. At this point, the infected perioral region changed in appearance and was now accompanied by local bleeding with crusting of blood at the wounds. The surface area of the wounds measured approximately 10 cm × 10 cm. A cluster blisters appeared on the patient's right neck, and ulcers developed in her mouth. On a

subjective numerical pain scale, the patient reported a pain level of 2. Overall, her diagnoses other than the oral and perioral herpes infection included: (1) Septic shock; (2) spontaneous peritonitis; (3) abdominal infection; (4) decompensated cirrhosis; and (5) hypoproteinemia. Dermatology was consulted regarding the treatment of the patient's wounds; they suggested treatment with oral antiviral drugs, an intramuscular injection of nutritious nerve drugs, and the application of topical penciclovir and mupirocin around the lips. Stomatology was also consulted and suggested the use of nitrocin in a local wet application around the lips.

CONCLUSION

Through multidisciplinary consultation, the patient's oral and perioral herpes infection was successfully treated with the following combined approach: (1) Application of topical antiviral and antibiotic treatments; (2) keeping the wound moist with a wet wound healing strategy; (3) systemic use of oral antiviral drugs; and (4) symptomatic and nutritional supportive care. The patient was discharged from the hospital after successful wound healing.

Key Words: Ventilator; Viral herpes; Nursing care; Case report

©The Author(s) 2023. Published by Baishideng Publishing Group Inc. All rights reserved.

Core Tip: Herpes simplex virus can be latent in the sensory ganglia of the host and reactivate periodically, resulting in recurrent herpes infection. The patient presented in this case report achieved good recovery after multidisciplinary consultation, treatment of the viral infection with oral and topical administration of antiviral drugs, the anti-inflammatory effect of furacilin, hemostasis with local epinephrine injection and application of thrombin lyophilized powder, and the use of a wet wound healing approach.

Citation: Tang AM, Xu JY, Wang R, Li YM. Treatment of a large area perioral viral herpes infection following noninvasive ventilation: A case report. *World J Clin Cases* 2023; 11(8): 1857-1861

URL: <https://www.wjgnet.com/2307-8960/full/v11/i8/1857.htm>

DOI: <https://dx.doi.org/10.12998/wjcc.v11.i8.1857>

INTRODUCTION

Alpha herpesvirus belongs to the Herpesviridae family, and has a relatively large, monopartite, double-stranded linear deoxyribonucleic acid (DNA). It mainly infects the skin, mucosa, and nerves, and can affect various hosts including humans and other animals. Here, we present the case of a patient seen by the gastroenterology department at our hospital who experienced an oral and perioral herpes infection following noninvasive ventilation during admission to the intensive care unit (ICU)[1]. The patient was treated with topical and oral antiviral and antibacterial drugs, uracil, hemostatic measures, and nutritional and supportive care[2,3]. A wet wound healing approach was also implemented with good results.

CASE PRESENTATION

Chief complaints

Following noninvasive ventilation in the ICU, a 73-year-old female patient developed an oral and perioral herpes infection.

History of present illness

A large wound developed around the patient's lips and in her mouth 2 d after noninvasive ventilation during admission to the ICU for management of decompensated cirrhosis complicated by abdominal infection, spontaneous peritonitis, hypoproteinemia, acute respiratory distress syndrome (ARDS) and septic shock.

History of past illness

The patient initially presented to the hospital with a 3-d history of abdominal pain accompanied by 2 d of dizziness. She was admitted to the ICU, where she was found to have decompensated cirrhosis complicated by abdominal infection, spontaneous peritonitis, hypoproteinemia, ARDS, and septic

shock. She was treated with noninvasive ventilation for management of ARDS.

Personal and family history

The patient did not have any pertinent personal or family medical history.

Physical examination

The patient was transferred to the gastroenterology department for further management. At this point, her consciousness was intact and she had no ongoing abdominal pain or distension, no chest tightness, and no asthma. The perioral wound progressed to exhibit local bleeding with crusting of blood, and measured approximately 10 cm × 10 cm.

Laboratory examinations

The following laboratory values were observed in the patient at the time of transfer to gastroenterology: Prothrombin time 15.9 sec; partial thromboplastin time 34.5 sec; albumin 27.9 g/L; alanine aminotransferase 56 U/L; total bilirubin 129.4 μmol/L; neutrophils 79.2%; hemoglobin 87 g/L; platelet count 48 × 10⁹/L; and high sensitivity C-reactive protein 77 mg/L.

MULTIDISCIPLINARY EXPERT CONSULTATION

Dermatology was consulted regarding treatment of the patient's perioral wounds; they suggested treatment with oral antiviral drugs, intramuscular injection of nutritious nerve drugs, and application of topical penciclovir and mupirocin around the lips. Stomatology was also consulted, and they suggested wet application of topical nitrocin around the lips.

FINAL DIAGNOSIS

Perioral herpes infection secondary to noninvasive ventilation.

TREATMENT

The patient achieved good recovery after multidisciplinary consultation and treatment including oral and topical antiviral and antibiotic administration, nutritional and symptomatic supportive care, the anti-inflammatory effect of furacilin, hemostasis with local epinephrine injection and application of topical thrombin lyophilized powder, and the use of a wet wound healing approach.

OUTCOME AND FOLLOW-UP

Following treatment, the patient's wound fully healed and she was discharged from the hospital. The perioral wound before and after treatment is depicted in [Figure 1](#).

DISCUSSION

Herpes simplex virus (HSV) can be latent in the sensory ganglia of the host and reactivate periodically, resulting in recurrent infection. Herpes infection is characterized histologically by epidermal blistering and necrosis and the presence of multinucleated epithelial giant cells, eosinophilic intranuclear inclusions, and significant neutrophilic and lymphocytic inflammatory infiltrate[4]. An immune response can be stimulated immediately by HSV infection, and, if so, lesions are typically limited to the skin surface and mucous membranes. However, when HSV infection occurs in newborns with immature immune function or people with immune deficiency (*i.e.* in the settings of organ transplantation, immunosuppressant use, or anti-tumor treatment), herpes can spread throughout body to infect the brain, liver, lung, eye, adrenal gland, skin and mucous membranes, and other various sites. Herpes infection in an immunocompromised setting is serious and carries a high mortality rate[5-7]. When the skin has extensive damage, such with eczema or burns, HSV often manifests as generalized infection of skin the and mucous membranes and can cause disseminated lesions. The patient in the present report had a large perioral wound measuring 10 cm × 10 cm accompanied by bleeding, difficulty opening the mouth, pain, and changes in self-image. After consultation, the cause of the patient's wound was identified as herpes infection. The wound was effectively managed with antiviral



DOI: 10.12998/wjcc.v11.i8.1857 Copyright ©The Author(s) 2023.

Figure 1 Perioral wound due to herpes infection, before and after treatment. A-B: Herpes infection causing large wound around the lips before (A) and after (B) medical treatment and wet wound care.

treatment, the anti-inflammatory effect of furacilin, and local hemostatic therapy. Additionally, a wet wound healing approach was implemented, and, through keeping the wound moist, healing was achieved.

One of the antiviral medications used in the management of the patient's perioral herpes infection was topical penciclovir. Penciclovir is a nucleoside antiviral drug that inhibits HSV types I and II and can be administered topically with a cream. The antibacterial medication mupirocin is suitable for skin infection caused by Gram-positive cocci, and is used to treat primary skin infections, pustulosis, furuncle, folliculitis, and infections secondary to eczema[8,9]. Furacilin can interfere with bacterial glucose metabolism and the oxidase function to cause bacteriostasis or sterilization[10]. This drug has a broad spectrum of antibacterial activity, and is effective against various Gram-positive and anaerobic pathogenic bacteria; however, it not as effective in the treatment of infections caused by *Pseudomonas aeruginosa*, *Proteus* spp., or *Pneumococcus* spp.[11,12]. It is also ineffective against fungi and molds, but it is still effective against bacterial infections secondary to mold[13].

Epinephrine injection can cause constriction of small arteries with a less potent effect on veins, and is especially effective on the small vessels of the skin and mucosae. Lyophilized thrombin powder is also used for hemostasis of small blood vessels, gastrointestinal bleeding, and traumatic bleeding that is not amenable to surgical ligation. Epinephrine and lyophilized thrombin powder can function well in achieving local hemostasis, and according to the wet healing theory, this combination is more likely to reduce the potential cost associated with the use of advanced wound dressings. This is accomplished *via* the promotion of wound healing by keeping the wound wet and has been associated with faster healing rates[14]. In the present case, we used a nitrofurazone dressing with regular dressing change. Also, a gentle dressing change technique was used to prevent injury to the healing skin.

Finally, with respect to the psychology of the patient and her family, we used a gradual communication strategy. This strategy facilitated cooperation between the patient and her family and medical staff, which we believe improved the treatment outcome and promoted her ongoing rehabilitation.

CONCLUSION

This case report shares valuable experience in the clinical management of perioral herpes infection following noninvasive ventilation. There are few reports in the literature describing an effective treatment plan with respect to such a case. In the present case, the patient's wound healed after administration of oral and topical antiviral medications, furacilin, local epinephrine and topical thrombin powder, and a wet wound healing approach with no observed adverse reactions or toxic side effects. In patients managed with noninvasive ventilation, nursing and supportive staff should be aware of the signs of perioral herpes infection, including unusual pain with or without associated wounds of the skin around the mouth. The treatment regimen described in this case report was effective in accelerating the wound healing process and eradicating local herpes infection. Therefore, in patients who develop HSV infection following noninvasive ventilation, the authors suggest that the pharmacological and wound care measures applied here should be pursued.

FOOTNOTES

Author contributions: Tang AM designed the research study; Xu JY and Wang R performed the research; Li YM analyzed the data and wrote the manuscript; All authors have read and approve the final manuscript.

Supported by the Construction Fund of Key Medical Disciplines of Hangzhou, No. OO20200265; the Basic Public Welfare Research Project of Zhejiang Province, No. LGF22H250005; General project of Hangzhou Health Science and Technology Plan, No. A20200320; and Zhejiang Provincial Medical and Health Technology Project, No. 2020PY016.

Informed consent statement: The patient provided informed written consent for the publication of this case report.

Conflict-of-interest statement: All authors report having no relevant conflicts of interest for this article.

CARE Checklist (2016) statement: The authors have read the CARE Checklist (2016), and the manuscript was prepared and revised according to the CARE Checklist (2016).

Open-Access: This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution NonCommercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <https://creativecommons.org/licenses/by-nc/4.0/>

Country/Territory of origin: China

ORCID number: Jia-Ying Xu 0000-0001-9550-0857; Rong Wang 0000-0003-2806-0382; Yi-Min Li 0000-0002-2777-4458.

S-Editor: Liu JH

L-Editor: Filipodia

P-Editor: Liu JH

REFERENCES

- Ahlström MG, Omland LH, Ronit A, Obel N. Immortal time bias: a possible explanation for "Impact of acyclovir use on survival of patients with ventilator-associated pneumonia and high load herpes simplex virus replication". *Crit Care* 2020; **24**: 355 [PMID: 32552904 DOI: 10.1186/s13054-020-03073-4]
- Schuijter L, Gebhard M, Ruf HG, Jaschinski U, Berghaus TM, Wittmann M, Braun G, Busch DH, Hoffmann R. Impact of acyclovir use on survival of patients with ventilator-associated pneumonia and high load herpes simplex virus replication. *Crit Care* 2020; **24**: 12 [PMID: 31924246 DOI: 10.1186/s13054-019-2701-5]
- Coisel Y, Bousbia S, Forel JM, Hraiech S, Lascola B, Roch A, Zandotti C, Million M, Jaber S, Raoult D, Papazian L. Cytomegalovirus and herpes simplex virus effect on the prognosis of mechanically ventilated patients suspected to have ventilator-associated pneumonia. *PLoS One* 2012; **7**: e51340 [PMID: 23236477 DOI: 10.1371/journal.pone.0051340]
- Bouza E, Giannella M, Torres MV, Catalán P, Sánchez-Carrillo C, Hernandez RI, Muñoz P; Gregorio Marañón Task Force for Pneumonia. Herpes simplex virus: a marker of severity in bacterial ventilator-associated pneumonia. *J Crit Care* 2011; **26**: 432.e1-432.e6 [PMID: 21129912 DOI: 10.1016/j.jcrc.2010.10.008]
- Cunha BA, Chak A, Durie N. Herpes simplex virus-1 Late-onset ventilator-associated pneumonia: the importance of cytopathologic diagnosis. *Am J Infect Control* 2010; **38**: 249-250 [PMID: 20347638 DOI: 10.1016/j.ajic.2009.08.013]
- Aldrak N, Alsaab S, Algethami A, Bhare D, Wakimoto H, Shah K, Alomary MN, Zaidan N. Oncolytic Herpes Simplex Virus-Based Therapies for Cancer. *Cells* 2021; **10** [PMID: 34207386 DOI: 10.3390/cells10061541]
- Uche IK, Kousoulas KG, Rider PJF. The Effect of Herpes Simplex Virus-Type-1 (HSV-1) Oncolytic Immunotherapy on the Tumor Microenvironment. *Viruses* 2021; **13** [PMID: 34206677 DOI: 10.3390/v13071200]
- Nath P, Kabir MA, Doust SK, Ray A. Diagnosis of Herpes Simplex Virus: Laboratory and Point-of-Care Techniques. *Infect Dis Rep* 2021; **13**: 518-539 [PMID: 34199547 DOI: 10.3390/idr13020049]
- Enescu CD, Utz Petry S, Nartker N, Moossavi M. Treatment of acyclovir-resistant herpes simplex virus with intralesional cidofovir. *JAAD Case Rep* 2021; **13**: 86-89 [PMID: 34189219 DOI: 10.1016/j.jidcr.2021.05.001]
- Cherenko TM, Turchyna NS, Heletiuk YL, Andriushkova NG, Kuzminska OV. Seasonal factor and frequency of detection of herpes viruses and influenza virus in patients with ischemic stroke. *Wiad Lek* 2021; **74**: 923-928 [PMID: 34156005]
- Wong A, Rawson RV, Templeton DJ. Herpes simplex virus-2 (HSV-2) pseudotumour as the initial presentation of human immunodeficiency virus infection. *Intern Med J* 2021; **51**: 1001-1002 [PMID: 34155762 DOI: 10.1111/imj.15364]
- Eisenstein LE, Cunha BA. Herpes simplex virus pneumonia presenting as failure to wean from a ventilator. *Heart Lung* 2003; **32**: 65-66 [PMID: 12571550 DOI: 10.1067/mhl.2003.4]
- Paul A, Ghose A. Herpes simplex virus-1 oesophagitis presenting with persistent hiccup in an immunocompetent host: A case report. *Trop Doct* 2021; **51**: 601-602 [PMID: 34152226 DOI: 10.1177/00494755211022519]
- de Laat EH, van den Boogaard MH, Spauwen PH, van Kuppevelt DH, van Goor H, Schoonhoven L. Faster wound healing with topical negative pressure therapy in difficult-to-heal wounds: a prospective randomized controlled trial. *Ann Plast Surg* 2011; **67**: 626-631 [PMID: 21629111 DOI: 10.1097/SAP.0b013e31820b3ac1]



Published by **Baishideng Publishing Group Inc**
7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA

Telephone: +1-925-3991568

E-mail: bpgoffice@wjgnet.com

Help Desk: <https://www.f6publishing.com/helpdesk>

<https://www.wjgnet.com>

