Published online 2016 October 15.

Letter

Treatment Options of Streptococcal Pharyngitis in Infancy

Davood Kheirkhah,¹ and Alireza Sharif^{2,*}

¹Department of Pediatrics, Kashan University of Medical Sciences, Kashan, IR Iran ²Department of Infectious Diseases, Kashan University of Medical Sciences, Kashan, IR Iran

^{*} Corresponding author: Alireza Sharif, Department of Infectious Diseases, Kashan's Shahid Beheshti Hospital, 3rd Km of Ravand Road, Kashan, IR Iran. Tel: +98-9363401700, E-mail: Kaumspub@outlook.com

Received 2016 August 26; Revised 2016 September 23; Accepted 2016 October 04.

Keywords: Streptococcus pyogenes, Pharyngitis, Treatment Protocols

Dear Editor,

Recently, we read with interest the case report by Sharif et al. entitled "Streptococcal pharyngitis in a two-month-old infant: a case report" published in Jundishapur journal of microbiology (1).

Streptococcal pharyngitis, as reported in their manuscript, is rare among children less than 1 year old and there are no clear instructions regarding the treatment of infant patients suffering from this condition. The main goals of antimicrobial therapy for eradication of group A beta-hemolytic streptococcus (GABHS) pharyngitis are reducing severity and duration of acute signs and symptoms, lowering the incidence of nonsuppurative complications and reducing the transmission rat (2). In this case the patient has been treated with intramuscular penicillin benzathine G because of poor feeding and significant illness; however, this is not the only treatment choice (1). Antimicrobial resistance has not been a significant issue in the treatment of GABHS pharyngitis and several treatment options are available (3, 4). The drug of choice is oral penicillin V that has appropriate effects, narrow spectrum, low cost and easy consumption. However, similar to intramuscular penicillin no exact dosing is available for this drug in infants, so that the only prescription parameter is weighing less or greater than 27 kg (5, 6). Compare to intramuscular penicillin, oral penicillin V is less effective in the prevention of acute rheumatic fever, so nowadays this method is used less frequently (5, 6).

In this case oral Amoxicillin seems to be an appropriate treatment option because of accurate dosage (50 mg/kg/day for 10 days), better gastrointestinal absorption and better activity against other causative pathogens (4, 7). Other available antimicrobial agents against GABHS pharyngitis are Cephalexin (25-50 mg/kg/day for 10 days), Azithromycin (12 mg/kg/dose for first day followed by 6 mg/kg/dose for days 2 through 5), Clarithromycin (7.5 mg/kg/dose for 10 days) and Clindamycin (7 mg/kg/dose for 10 days) (2, 4).

In conclusion, antimicrobial therapy against GABHS pharyngitis is not limited to penicillin's family and there are a lot of options to treat infants with GABHS pharyngitis. Therefore, we believe that this case could be treated with a wider range of oral antibiotics.

References

- Sharif MR, Aalinezhad M, Sajadian SM, Haji Rezaei M. Streptococcal Pharyngitis in a Two-Month-Old Infant: A Case Report. Jundishapur J Microbiol. 2016;9(5):ee32630. doi: 10.5812/jjm.32630. [PubMed: 27540457].
- 2. Shulman ST. Group a streptococcus. In: Kliegman RM, Stanton BF, St G, JW III, Schor NF, editors. Nelson textbook of pediatrics. 20 ed. Philadelphia, PA: Elsevier; 2015. pp. 1327–37.
- Vandevoorde A, Ascenzo S, Miendje Deyi VY, Mascart G, Mansbach AL, Landsberg M, et al. Group A streptococcus colonies from a single throat swab can have heterogeneous antimicrobial susceptibility patterns. *Pediatr Infect Dis J.* 2013;32(3):296–8. doi: 10.1097/INF.0b013e31827c9796. [PubMed: 23249905].
 Webern pitte Dein Gem. activity (a) dai to conciling a page of the page o
- 4. Weber R. Pharyngitis. Prim Care. 2014;41(1):91-8. doi:10.1016/j.pop.2013.10.010. [PubMed: 24439883].
- van Driel ML, De Sutter AI, Habraken H, Thorning S, Christiaens T. Different antibiotic treatments for group A streptococcal pharyngitis. *Cochrane Database Syst Rev.* 2016;9:CD004406. doi:10.1002/14651858.CD004406.pub4. [PubMed: 27614728].
- Escmid Sore Throat Guideline Group, Pelucchi C, Grigoryan L, Galeone C, Esposito S, Huovinen P, et al. Guideline for the management of acute sore throat. *Clin Microbiol Infect.* 2012;18 Suppl 1:1-28. doi: 10.1111/j.1469-0691.2012.03766.x. [PubMed: 22432746].
- 7. Gillies M, Ranakusuma A, Hoffmann T, Thorning S, McGuire T, Glasziou P, et al. Common harms from amoxicillin: a systematic review and metaanalysis of randomized placebo-controlled trials for any indication. *CMAJ.* 2015;**187**(1):E21–31. doi: 10.1503/cmaj.140848. [PubMed: 25404399].