



A Case Presentation on Acute Lymphonodular Pharyngitis with a Review

Mohammed Malik Afroz^{*1}, Karthiga Kannan², Chanchala H P³, Priyanka Talwade³,
Avinash Tejasvi M L⁴, Anulekha Avinash⁵, Sajida Husna⁶

¹Department of Oral Surgery and Diagnostic Sciences, Dar Al Uloom University, Riyadh – 13314, Kingdom of Saudi Arabia

²Department of Maxillofacial Surgery and Diagnostic Sciences, Majmaah University. AL – zulfi – 15981, Kingdom of Saudi Arabia

³Department of Pediatrics and Preventive Dentistry, JSS Dental College and Hospital, JSS Academy of Higher Education and Research, Mysuru, Karnataka, India

⁴Department of oral medicine and radiology, Kamineni Institute Dental Sciences, Narketpally, India

⁵Department of Prosthodontics, Kamineni Institute of Dental sciences, Narketpally, Telangana state, India

⁶Department of oral pathology, Panineeya Mahavidyalaya Institute of Dental Sciences, Kaloji Narayana Rao University of Health Sciences, Telangana, India

Article History:

Received on: 31 Jul 2020
Revised on: 10 Sep 2020
Accepted on: 15 Oct 2020

Keywords:

Acute lymphonodular pharyngitis, multiple non-vesicular lesions, Cox Sackie Virus infections

ABSTRACT

Acute lymphonodular pharyngitis is a viral infection predominantly caused by coxsackievirus and is seen in children. The infection is characterized by typical prodromal symptoms of mild fever, sore throat, difficulty in deglutition. The characteristic clinical presentation reveals multiple raised, discrete, yellowish-white non-vesicular lesions with surrounding erythematic appearance commonly seen on the roof of the posterior aspect of the oral cavity. The lesions have been identified as early as 1962, described in detail in the literature. These lesions may be common but are often overlooked due to less knowledge among the patients or rather the patients not directly reporting to the dental office. We present with a case of a five-year-old apparently healthy child with a detailed description of symptoms, clinical features, follow up, differential diagnosis and review. This article aims to bring awareness of the disease in the present form to the readers with the purpose of early detection and identification of condition for treatment. We found very less review in the literature over past years which bring us to understand that it is overlooked though it has been identified in the early years. The disease may be reported less, but it is not obsolete to be discarded.



*Corresponding Author

Name: Mohammed Malik Afroz
Phone:
Email: mohammedma@dau.edu.sa

ISSN: 0975-7538

DOI: <https://doi.org/10.26452/ijrps.v11i4.4033>

Production and Hosted by

IJRPS | <https://ijrps.com>

© 2020 | All rights reserved.

INTRODUCTION

Acute lymphonodularpharyngitis is known to have a classical clinical presentation which helps it to be differentiated from a closely related infection of herpangina and other viral diseases, due to its typical prodromal symptoms of mild fever and sore throat its easy to understand its viral nature. The lesions are usually seen in young children and often self-limiting, making their diagnosis often missed due to common viral medications being prescribed for typical viral infection. We present with a similar case in

a five-year-old female child who reported to our hospital with her father, who was concerned with atypical discrete eruptions in the posterior roof region of his daughter since last night.

History

Acute lymphonodular pharyngitis was described by A.J. Steigman and M.M. Lipton (Steigman *et al.*, 1962; Steigman and Lipton, 1963) in their publication of 1962. They describe the lesion as an outbreak during the summer and early fall of 1960 in Louisville, Kentucky and Fort Knox. Due to its typical clinical presentation, they suggested the name as Acute Lymphonodular Pharyngitis with an abbreviation of A.L.N.P. They termed it as an outbreak as it was seen in young children, to older adults including one doctor and two nurses of the region. This prompted them to undertake a biopsy and viral titers which proved that these lesions are due to Cox Sackie Virus A10.

As reported by A.J Steigman and M.M. Lipton, our patient also had prodromal symptoms of sore throat, disagreeable taste, difficulty in deglutition since last two days which was soon followed by mild fever ranging from 100 to 105 degree Fahrenheit since last night. The parents initially thought it to be a viral infection related to the change in the climate from summer to winter as seen in our area of central Saudi Arabia during the period of October to December of each year. The father said in affirmative to the absence of rhinorrhea, cough, tracheitis, otitis media.

There have been other studies reported in the recent years by Yen FB et.al (Yen *et al.*, 2009) who have followed patients in Taiwan during the year 2004 to 2009, and suggested it be having an outbreak during the end of warm summer and all there patient's reported with fever not higher than 105 degrees Fahrenheit and other typical symptoms like oral ulcers and decreased food intake due to ulcers as seen in our patient. A similar study was conducted in France by A.Mirand et.al (Mirand *et al.*, 2012) in their hospital also suggested similar seasonal timing as seen in our case and having similar symptoms. Their study was conducted in a hospital where even in patients were reported and kept under observation for an average period of 5 to 6 days.

Clinical Appearance

The characteristic lesions as reported by A.J Steigman and M.M. Lipton (Steigman *et al.*, 1962; Steigman and Lipton, 1963) comprised of raised, discrete, whitish to yellowish in colour, solid, non-vesicular and surrounded by erythema of 3 to 6mm in diameter. It does not ulcerate even super-

ficially and even on vigorous trauma to swabbing for specimen collection and biopsy yielded to slight bleeding which stopped within 12 to 18 hrs to become elevated again until all other lesions have resolved. There is a further absence of gingiva – stomatitis, skin eruptions, arthralgia, otitis media and cervical lymphadenitis. The lesions do not involve the tonsils but are seen in free marginal pillars. These typical appearance helped them to differentiate this lesion to a more commonly seen lesion of herpangina and hand, foot and mouth disease.

Our clinical examination of the child revealed the absence of skin eruptions, otitis media, cervical lymphadenitis, arthralgia and gingiva – stomatitis. There was an initial complaint of sore throat, difficulty in deglutition and mother's examination revealed a mild redness in the posterior part of the oral cavity as can be seen in Figure 1. There were multiple discrete eruptions having a yellowish-white colour and surrounded by an erythema. Each eruption was not more than 2 mm in size, as can be seen in Figure 2. The patient was not subjected to any swabbing of the lesion owing to her age and milder symptoms. The patient was referred to the paediatrician who on examination suggested a form of viral infection, however, was not sure of the oral eruptions in the posterior part of her oral cavity. The patient further made it difficult to visualize the lesion as was apprehensive to the tongue depressor. The father has noticed the lesions since yesterday night; however, on enquiry mother revealed a generalized redness was seen in the area since last one day after which there was mild fever.

Yen.FB et.al (Yen *et al.*, 2009) have reported similar clinical picture as seen in our patient who was characterized by multiple discrete eruptions in the posterior part of the palate in their patients.



Figure 1: Early greyish white discrete lesions

Investigation

The extensive investigations reported by A.J Steigman and M.M. Lipton comprised of swab collection for growth of the microorganisms of various media, followed by biopsy and antibody titres which



Figure 2: Greyish white lesions with red Halo



Figure 3: Shows resolving nodules with reddish halo – the picture was taken 5 days after primary lesions seen.

brought them to the conclusion of presence of Cox Sackie Virus A10 as a causative virus. However, they suggested that the typical clinical appearance and nature of the lesion stopped them from further investigation on other patients as the lesions starting resolving by themselves in 10 to 14 days.

Our patient was not subjected to any above-said investigations due to its typical clinical appearance, age of the patient and the lesions starting resolving after another two days by themselves.

It has been reported by various authors (Lo *et al.*, 2011; Podin *et al.*, 2006) that coxsackievirus A10 is seen to be associated with other common diseases like hand foot and mouth disease, herpangina and human enterovirus A-type. The serological studies conducted on patients suffering from any of these diseases are seen to be having strains of Cox Sackie virus A10, A16 A3 and A4 strains.

Prognosis

Our patient was subjected to symptomatic treatment which ranged from prescribing him ibuprofen to control the pain which she felt. Further, she was given Chlorhexidine Digluconate 2mg to relieve her pain and since the region involved was the posterior part of the oral cavity she has also advised a hyaluronic acid spray so that the medication can reach to the posterior part of the oral cavity. To avoid further deterioration, she was also advised multivitamin syrup. We have seen the resolution of the lesions from the very next day. However, the complaint of sore throat with difficulty in deglutition lasted for another two days as can be seen in Figure 3. The lesions were completely resolved within five days with mild localized redness which persisted for 2 to 3 days.

Discussion

Acute lymphonodular pharyngitis has been considered as a separate lesion since its inception due to its characteristic features and a self-limiting condition (Tseng *et al.*, 2007; Van Tu *et al.*, 2007). Though the prodromal symptoms are typical to other viral

infections, especially Herpangina where there is a sore throat and mild fever which subsides by itself but what creates a differentiation is the typical clinical appearance (Van Tu *et al.*, 2007; Solomon *et al.*, 2010). It can also be confused with a bacterial infection like the Diphtheria which is having a wash leather-like covering and scraping of the lesion will reveal an underlying redness, but this lesion is non – scapable and discrete with yellowish-white appearance (Khetsuriani *et al.*, 2006; Chen *et al.*, 2010). The other lesion which it can be confused is the hand, foot and mouth disease which is a more severe form of viral infection but as the name suggests it has a lesion on foot and hand as well which is absent in this condition. Initially, when it was discovered, it was seen as an endemic lesion where it not only affected the general population but also the nurses and the doctor who were treating this patient suggesting that it is a highly transferrable condition. But it can be seen as a separate entity in a few patients and children are more prone to viral infections due to weather changes as was seen in our condition. An investigation was not carried out like biopsy due to its typical clinical appearance, which was evident on the day patient reported to us. Secondly, the lesion showed improvement once we started with the typical medications used in viral infection, suggesting its nature. There have been various epidemiological surveys carried out (Blomqvist *et al.*, 2010) whenever there was an outbreak of viruses and most commonly reported were hand, foot and mouth disease, herpangina and enterovirus but always it was associated with a high number of Cox Sackie Type A10 and A16 viruses.

CONCLUSION

We will like to support that most lesions are seen in the anterior part of the oral cavity and the lesions in the posterior part of the oral cavity are often missed. There should be a careful evaluation of the oral cav-

ity. Thorough knowledge of the lesions that can often be seen in the posterior part of the oral cavity can be ruled out by having a clear clinical understanding of the lesions which can avoid delay in the treatment due to time taking to avail the investigative reports. One should also keep in mind that there are certain lesions which are related to seasonal variation. Hence a thorough knowledge of these lesions is needed in the demographic area of where a clinician works. We suggest that an effort must be made to identify these lesions and have an epidemiological survey done in our area to identify the cases reported as well as suggesting a modification in the lifestyle to avoid an outbreak of these lesions in our working area.

ACKNOWLEDGEMENT

We acknowledge Dr Sajida Husna B.D.S (M.D.S) the mother of a child to report this case in our clinic and summarizing the actual events apart from her support in convincing the child for taking adequate pictures and supporting us with a follow up of the disease.

Funding Support

The authors declare that they have no funding support for this study.

Conflict of Interest

The authors declare that they have no conflict of interest for this study.

REFERENCES

- Blomqvist, S., Klemola, P., Kaijalainen, S. 2010. Co-circulation of coxsackieviruses A6 and A10 in hand, foot and mouth disease outbreak in Finland. *Journal of Clinical Virology*, 48(1):49–54.
- Chen, S. P., Huang, Y. C., Li, W. C., Chiu 2010. Comparison of clinical features between coxsackievirus A2 and enterovirus 71 during the enterovirus outbreak in Taiwan, 2008: a children's hospital experience. *Journal of Microbiology, Immunology and Infection*, 43(2):99–104.
- Khetsuriani, N., Lamonte-Fowlkes, A., Oberst, S. 2006. Enterovirus surveillance—United States, 1970–2005. *MMWR Surveill Summ*, 55(8):1–20.
- Lo, S. H., Huang, Y. C., Huang, C. G., et al. 2011. Clinical and epidemiologic features of Coxsackievirus A6 infection in children in northern Taiwan between 2004 and 2009. *Journal of Microbiology, Immunology and Infection*, 44(4):252–257.
- Mirand, A., Henquell, C., Archimbaud, C. 2012. Outbreak of hand, foot and mouth disease/herpangina associated with coxsackievirus A6 and A10 infections in 2010, France: a large citywide, prospective observational study. *Clinical Microbiology and Infection*, 18(5):E110–E118.
- Podin, Y., Gias, E. L., Ong, F., Leong, Y. W. 2006. Sentinel surveillance for human enterovirus 71 in Sarawak, Malaysia: lessons from the first seven years. *BMC public health*, 6(1):180.
- Solomon, T., Lewthwaite, P., Perera, D., Cardosa, M. J., McMinn, P., Ooi, M. H. 2010. Virology, epidemiology, pathogenesis, and control of enterovirus 71. *The Lancet Infectious Diseases*, 10(11):778–790.
- Steigman, A. J., Lipton, M. M. 1963. Acute lymphonodular pharyngitis. *Archiv fur die gesamte Virusforschung*, 13((1-3)):143–150.
- Steigman, A. J., Lipton, M. M., Braspenickx, H. 1962. Acute lymphonodular pharyngitis: A newly described condition due to Coxsackie A virus. *The Journal of Pediatrics*, 61(3):331–336.
- Tseng, F. C., Huang, H. C., Chi, C. Y. 2007. Epidemiological survey of enterovirus infections occurring in Taiwan between 2000 and 2005: analysis of sentinel physician surveillance data. *Journal of medical virology*, 79(12):1850–1860.
- Van Tu, P., Thao, N. T. T., Perera, D., Truong, K. H. 2007. Epidemiologic and virologic investigation of hand, foot, and mouth disease, southern Vietnam, 2005. *Emerging infectious diseases*, 13(11):1733–1741.
- Yen, F. B., Chang, L. Y., Kao, C. L., Lee, P. I. 2009. Coxsackieviruses infection in northern Taiwan—epidemiology and clinical characteristics. *J Microbiol Immunol Infect*, 42(1):38–46.