Hoagland sign: bilateral upper eyelid oedema

Yuki Otsuka,[1,2] Masayuki Kishida[1,2]

[1]Department of General Internal Medicine, Okayama City Hospital, Okayama, Japan
[2]Department of General Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

Correspondence to
Yuki Otsuka;
otsuka@s.okayama-u.ac.jp

Accepted 7 June 2022

To cite: Otsuka Y, Kishida M. *BMJ Case Rep* 2022;**15**:e250857. doi:10.1136/bcr-2022-250857

DESCRIPTION

A woman in her 20s visited our hospital with a chief complaint of eyelid oedema subsequent to fever and sore throat. Upper eyelid oedema (figure 1A) was observed in addition to fever of 39.8°C and painful neck lymphadenopathy. Blood examination revealed 7% of atypical lymphocytes and acute liver injury with aspartate aminotransferase 439 U/L and alanine aminotransferase 402 U/L, and echography demonstrated hepatosplenomegaly. She was diagnosed with infectious mononucleosis (IM). Her eyelid oedema almost disappeared 3 days after the admission prior to fever resolution (figure 1B). Epstein-Barr virus (EBV) immunoglobulin M at the time of admission revealed to be positive later; hence the diagnosis of acute EBV infection was made. She was relieved only with rest and symptomatic treatment and discharged from hospital 10 days later.

The mechanism or sensitivity and specificity are still unknown; however, bilateral upper eyelid oedema is one of the unique and classical manifestations of acute EB infection or IM. It was first reported in the 1950s and named 'Hoagland sign'.[1] The oedema is observed as a hypoechoic area and reported as dacryoadenitis.[2] A rare case of a man and a similarly Japanese case also have been reported.[3 4] It is interesting that this sign usually present only for acute few days of the clinical presentation,[5] so there has been no literature describing the improvement process of the transient oedema. The differentials of acute bilateral upper eyelid oedema without general oedema reported to also include allergic reactions such as contact dermatitis or angioedema, Kawasaki disease, trichinosis and bilateral periorbital cellulitis.[6 7] However, physicians may differentiate them according to associated symptoms and findings. We hope this case will help clinicians for the differential diagnosis of fever accompanied with no other specific symptoms or signs among young adults.

Figure 1 (A) Bilateral upper eyelid oedema of young febrile woman. (B) It almost disappeared only 3 days after.

Learning points

- Infectious mononucleosis may accompany bilateral upper eyelid oedema.
- The mechanism or sensitivity and specificity are still unknown but it may help the differential diagnosis of fever accompanied with no other specific symptoms or signs among young adults.

Contributors YO and MK saw the patient. YO wrote the manuscript and MK revised it.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Consent obtained directly from patient(s)

Provenance and peer review Not commissioned; externally peer reviewed.

Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

REFERENCES

1 Hoagland RJ. Infectious mononucleosis. *Am J Med* 1952;13:158–71.
2 Burger J, Thurau S, Haritoglou C. [Bilateral lid swelling during infectious mononucleosis (Hoagland-sign)]. *Klin Monbl Augenheilkd* 2005;222:1014–6.
3 Louppides S, Kakoullis L, Parpas G, *et al*. Upper eyelid oedema in a patient with pharyngitis/exudative tonsillitis and malaise: Hoagland sign in infectious mononucleosis. *BMJ Case Rep* 2019;12:e233719.
4 Inokuchi R, Iida H, Ohta F, *et al*. Hoagland sign. *Emerg Med J* 2014;31:561.
5 Sawant SP. Hoagland Sign: An early manifestation of acute infectious mononucleosis - A case report. *Curr Pediatr Res* 2017;21:400–2.
6 Chérif MY, Richert B. Febrile palpebral edema. *JAAD Case Rep* 2021;14:59–61.
7 Suer KH, Kaptanoglu AF. Association of periorbital edema and fever in acute infectious mononucleosis: a case report. *Kafkas J Med Sci* 2013;3:152–4.