

Rare Clinical Conditions Caused by Dry Eye

Du Fusheng¹, Duan Yanping¹ and Ping Jiejie^{2*}

¹Anning First People's Hospital Affiliated to Kunming University of Science and Technology, Anning 650300, China

²Yunnan Provincial Hospital of Traditional Chinese Medicine, Kunming 650021, China

Asian Journal of Complementary and Alternative Medicine. Volume 11 Issue 01

Published on: 20/03/2023

*Author for Correspondence: Ping Jiejie, Yunnan Provincial Hospital of Traditional Chinese Medicine, Kunming 650021, China

Cite this article as: Fusheng D, Yanping D, Jiejie P. *Rare Clinical Conditions Caused by Dry Eye*. Asian Journal of Complementary and Alternative Medicine, Vol 11(1), 24-26:2023.

ABSTRACT

As a common ocular surface disease in ophthalmology clinics, dry eye has been perplexing the medical field due to its complex pathogenesis. Therefore, early detection and early treatment are particularly important. The author found in the course of clinical treatment that if dry eye goes untreated and becomes refractory dry eye, eyelash weakness and difficulty in opening eyes will occur; Meige syndrome (MG) has not been reported in the literature, but it appears now. The introduction of these two rare diseases, hoping to attract the attention of clinicians, so as to prevent the passing of time and avoid more serious complications.

Keywords: Dry eye; Weak eyelashes; Difficulty opening eyes; Meige syndrome

CLINICAL DATA

Weak eyelashes and difficulty opening eyes

Example 1 Ping XX, male, 62 years old, went to see a doctor because of “dryness of both eyes and weakness of opening eyes for 3 years”. The patient complained that in the past 3 years, he often felt dry eyes, accompanied by weakness in opening the eyes, eye pain, and often wanted to close them (Figure 1). Past denial of diabetes, myasthenia gravis and other medical history. Physical examination: the visual acuity of the right eye was 0.6 (corrected 1.0), the visual acuity of the left eye was 0.6 (corrected 1.0), the conjunctiva of both eyes was slightly congested, the tear film was uneven, and the fundus was (-). Double tear river height < 0.2 mm, double tear film break-up time 4 s, Schirmer I test (without anesthesia) right eye 3 mm/5 min, left eye 4 mm/5 min. Western medicine diagnosis: dry eyes.

Meige syndrome

Example 2 Wang Moumou, female, 60 years old, went to see a doctor because of “double blepharospasm and involuntary facial muscle twitching for more than one year”. The patient complained of dry eyes for several years, which was progressively aggravated. One year ago, the dryness of the eyes became worse, and bilateral blepharospasm, involuntary facial muscle twitching, eyelid twitching, and frequent lip muscle twitching occurred (Figure 2), brain MRI showed no obvious abnormalities, and the neurology department diagnosed Meige syndrome. After treatment with

methylcobalamin tablets, the symptoms were slightly relieved. Physical examination: right eye vision 0.6 (corrected 1.0), left eye visual acuity 0.8 (corrected 1.0), involuntary spasm of orbicularis muscles in both eyes, involuntary spasm of brow and facial muscles, difficulty in opening eyes, hypertrophy of eyelid margin, meibomian gland opening Blockage, fat plugs when squeezed, uneven tear film, fundus (-), double tears Degree <0.2 mm, double tear film break-up time 3 s, Schirmer I test (without anesthesia) 3 mm/5 min for the right eye, 3 mm/5 min for the left eye. Past: Hypertension for more than 4 years, systolic blood pressure up to 165mmHg, oral amlodipine besylate tablet 1#, Qd.



Figure 1: Shows that the eyelashes are weak, and it is difficult to close and open the eyes.



Figure 2: Shows the frowning of the brows, symmetrical and involuntary eyelid movement accompanied by pursed lips. (see the video after the reference) Scale score: 14 points; Dystonia Rating Scale (UDRS) score: 9 points. Western medicine diagnosis: Meige syndrome, hypertension grade 2.

DISCUSSION

According to the latest version of the “Consensus of Chinese Dry Eye Experts”, the main clinical symptoms of dry eye are: eye dryness, foreign body sensation, burning sensation, fatigue, discomfort, red eyes, vision fluctuations, etc. [1]. The etiology of this disease is complex, including systemic factors (such as Sjogren’s syndrome, diabetes, etc.) and ocular local factors (allergic conjunctivitis, cataract surgery, etc.) [2]. The popularization of electronic products also makes the disease prone to relapse, protracted healing, and even some rare neurological manifestations, which brings new challenges to the treatment.

The disease initially only has dry eyes, eye pain and discomfort, timely treatment and reasonable diet, daily life and other life care can be significantly relieved, if left untreated, it will become more serious in the later stage, especially in the elderly, with eyelid weakness This symptom should be differentiated from myasthenia gravis-ocular muscle type. The neostigmine test of this symptom (-), there is no obvious interval prolongation in electromyography examination, and myasthenia gravis-ocular muscle type Type, no symptoms of dry eye, mostly manifested as eye fatigue, fatigue test, electromyography showed that neostigmine test was positive. Just like the symptoms of the patient in case 1, for this disease, Wang Kentang, a physician in the Ming Dynasty, classified it in the “Eye Pain” in “Syndrome and Treatment Criteria

Ophthalmology” [3], saying: “The eyeball hurts in response to the sun, the eyelashes are weak, and they often want to close. If you don’t dare to look at it for a long time, it will cause soreness. Bupleurum Fusheng Decoction is the main treatment; if eye pain is relieved, eyelashes are weak, and you often want to close, Zhuyang Huoxue Decoction is the main treatment.” Eyes cannot be closed, “Zheng Treatment Principles ▪ Ophthalmology ▪ Miscellaneous Disease Syndrome Treatment Prescriptions” also recommends “Zhuyang Huoxue Decoction”. “Original Machine Qi Wei” also has a similar description. The cause of this symptom is unknown, but in traditional Chinese medicine, the cause is: weak spleen and stomach, insufficient qi and blood, insufficient yang qi to raise and send out, unable to moisten and nourish the eye pearl, resulting in weakness of the eyelids. The etiology of meridian syndrome differentiation is: “The tendon of the foot Taiyang is the upper link of the eye, and the tendon of the foot Yangming is the lower link of the eye. When it is hot, the tendon and the eye cannot be opened” [4].

In case 2, dry eye caused Meige syndrome (MG), which was rarely reported in domestic and foreign literature. MG is divided into three types: ① blepharospasm type; ② blepharospasm combined with oral and mandibular dystonia type; ③ oromandibular dystonia type, the disease is a disorder characterized by blepharospasm and oromandibular dystonia, more likely to occur in women aged 30 to 70 [5], and the ratio of women to men is 3:1 [6]. The condition of this disease is not clear at present, and patients with long-term stress, anxiety or long-term use of antipsychotic drugs (haloperidol, chlorpromazine, methylthiopyridazine, etc.) or persistent brain dysfunction will develop secondary to this disease [7]. Most patients visit the ophthalmology department with blepharospasm as the first symptom. At present, there is no gold standard for diagnosing MG. The two pathological features of blepharospasm and oromandibular dystonia are still the first-hand clinical indicators.

At present, botulinum toxin injection is still the first-line therapy for blepharospasm MG. The etiology of MG caused by dry eye is not yet clear. From the current sporadic literature reports, it seems that patients with MG may be accompanied by symptoms of dry eye and photophobia. Ji Eun Kim et al. [9] reported a case of taking antipsychotic drugs (Meige syndrome caused by blonanserin tablets), and the first symptom is refractory dry eye syndrome. Dry eye develops into refractory dry eye, which can cause MG. MG can also manifest as refractory dry eye clinically. The reason may be that frequent blepharospasm leads to lubrication dysfunction, and microtrauma occurs in the eye, resulting in uncertainty of the ocular surface state Damage [10]. This disease belongs

to the vibration of the cell wheel in traditional Chinese medicine, which is called in the “Code of Syndrome and Treatment”: the vibration of the cell wheel. Main pathogenesis Pathogenesis: Deficiency of both heart and spleen, loss of nourishment of muscles; Deficiency of liver and spleen blood, wind generation over time, internal movement of liver wind, pulling the eyelids and vibrating [11]. The disease is a disease of qi division, which is closely related to the two meridians of the liver and spleen [12]. The treatment principles are: invigorating the spleen and nourishing the blood, calming the liver and calming the wind, calming the nerves.

To sum up, dry eye needs to be detected and treated as early as possible, combining traditional Chinese and western medicine, while reducing the use of electronic products, regular work and rest, regular eating and drinking, and regular daily life. Cases 1 and 2 were both long-term out-of-treatment, which caused refractory dry eye. Don't be careless, they developed weak eyelashes, difficulty opening eyes, and even Meige syndrome, which made the treatment more difficult. Physicians should also pay attention to patients with dry eye, and don't be careless. Keep in mind that refractory dry eye will cause eyelash weakness, difficulty in opening eyes, and even Meige's syndrome. When encountering patients with “eyebrow winking”, change clothes and be vigilant.

REFERENCES

1. Chinese Branch of Asian Dry Eye Association, Ocular Surface and Lacrimal Disease Group of Ophthalmology Professional Committee of Cross-Strait Medical and Health Exchange Association, Ocular Surface and Dry Eye Research Group of Ophthalmologist Branch of Chinese Medical Doctor Association. Chinese Expert Consensus on Dry Eye: Definition and Classification (2021). Chinese Journal of Ophthalmology 56: 741-747.
2. World Federation of Chinese Medicine Societies. International Clinical Practice Guidelines for Traditional Chinese Medicine Dry Eye (2021) World Journal of Traditional Chinese Medicine 17: 2235-2244.
3. Kentang W (2018) Criteria for Syndrome and Treatment Ophthalmology. Chen Liping, School Note. Beijing: China Press of Traditional Chinese Medicine 2018: 129-130.
4. Kentang W (2018) Criteria for Syndrome and Treatment Ophthalmology. Chen Liping, School Note. Beijing: China Press of Traditional Chinese Medicine 2018: 116.
5. Ding Z, Ni J, Shuai M (2020) A case of first-episode Meige syndrome-blepharospasm type and literature review. Journal of Stroke and Neurological Diseases 37: 847-848.
6. Sabesan T (2008) Meige syndrome: A rare form of cranial dystonia that was treated successfully with botulinum toxin. Br J Oral Maxillofac Surg 46: 588-590.
7. Pandey S, Sharma S (2017) Meige's syndrome: History, epidemiology, clinical features, pathogenesis and treatment. Journal of the Neurological Sciences 372: 162-170.
8. Yuyu M, Yujie L, Yarong P (2022) Yin Kejing combined acupuncture and medicine in the treatment of Meige syndrome. Chinese Journal of Traditional Chinese Medicine Ophthalmology 32: 739-740.
9. Kim JE, Jung JW (2020) Refractory dry eye disease associated with Meige's syndrome induced by long-term use of an atypical antipsychotic. BMC Ophthalmology 20: 474.
10. Singh M, Das S, Sangwan V (2020) Comments on: Ocular surface status in patients with hemifacial spasm under long-lasting treatment with botuli-num A toxin: A comparative fellow eye study. Indian Journal of Ophthalmology 68: 264.
11. Qinghua Z (2013) Traditional Chinese Medicine Ophthalmology. Beijing: China Press of Traditional Chinese Medicine, 2013: 122-123.
12. Juntian L, Yan H, Ruosang D (2020) One case of acupuncture and moxibustion treatment of Meige syndrome. New Chinese Medicine 52: 144-145.