



DEALING EARLY AGE PRESBYOPIA WITH AYURVEDA- A REVIEW

Ayurveda

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ABSTRACT

Presbyopia, traditionally an age-related condition, is increasingly being diagnosed in younger individuals, often due to lifestyle changes, health conditions and environmental factors. This review explores the growing prevalence of early-onset presbyopia, with a focus on the contributing factors such as increased screen time, chronic health conditions, genetic predisposition, and environmental influences like smoking and UV exposure. The article examines the symptoms, diagnosis, and treatment options for early presbyopia, including reading glasses, contact lenses, surgical interventions, and lifestyle modifications with the help of Ayurveda. Additionally, it highlights the importance of early detection and preventive measures to manage the condition effectively. As presbyopia begins to affect younger populations, greater awareness and intervention strategies are essential to preserving eye health and quality of life. Ayurved and ayurvedic remedies play a very important role in developing quality of life. Kriyakalpa, therapeutic procedures provide major support in enhancing eye health.

KEYWORDS

Early Presbyopia, Accommodation, Ayurveda, Kriyakalpa

INTRODUCTION

Presbyopia is typically associated with aging, with most individuals noticing its effects around the age of 40¹. However, an emerging trend shows that this age-related condition is beginning to appear in individuals at much younger ages. Presbyopia, the gradual loss of the eye's ability to focus on close objects due to the hardening of the intra ocular lens, has traditionally been seen as an inevitable part of aging². Yet, lifestyle factors, environmental influences, and health conditions are contributing to an earlier onset of this condition. This article delves into the causes, symptoms, diagnosis, and treatment modalities of presbyopia in early age, while also highlighting the importance of prevention and early intervention.

MATERIALS AND METHODS-

Presbyopia-

Presbyopia occurs when the lens of the eye, which is responsible for focusing light rays onto the retina, loses its flexibility and ability to change shape¹. This reduction in accommodation power makes it difficult to focus on near objects, leading to blurred vision when reading or doing close-up tasks. Unlike myopia (nearsightedness) or hyperopia (farsightedness), which are refractive errors caused by the shape of the eye, presbyopia is a physiological process related to aging, specifically the lens's hardening and loss of elasticity of lens capsule².

Presbyopia at an Early Age: Causes and Contributing Factors³:

1. Increased Screen Time: In the digital age, excessive screen time has become a major contributing factor to the early onset of presbyopia. Extended use of smart phones, tablets, and computers can cause digital eye strain, which mimics presbyopia symptoms such as difficulty focusing on close objects, headaches, and eye fatigue. Prolonged digital exposure may also accelerate the stiffening of the lens, leading to early presbyopia.
2. Health Conditions: Certain health conditions can predispose individuals to develop presbyopia at a younger age. Diabetes, hypertension, and certain autoimmune diseases can affect the eyes and increase the risk of early presbyopia. For example, individuals with diabetes often experience fluctuations in blood sugar levels, which can damage the blood vessels in the eyes and affect the lens' flexibility.
3. Genetics: Presbyopia runs in families, and early onset may be linked to genetic factors. Early onset of presbyopia in parents can lead to same experience in their children.
4. Lifestyle Choices and Environmental Factors: Smoking, poor nutrition, and lack of UV protection for the eyes can contribute to earlier lens damage. Smokers, in particular, are at higher risk for a variety of ocular conditions, including presbyopia, due to the toxins they inhale that damage the eye's lens and increase the rate of aging in the eye.
5. Refractive Surgery: Individuals who have undergone refractive surgery, such as LASIK, may also experience earlier symptoms of presbyopia. While LASIK corrects distance vision, it doesn't address near vision, and many individuals who had the surgery in their 20s or 30s may find themselves needing reading glasses sooner than

expected.

Symptoms of Early Presbyopia:

The symptoms of presbyopia are similar regardless of age, but in younger individuals, these signs can often be overlooked or misinterpreted as signs of fatigue or stress. Common symptoms include:

- Blurred vision when reading or performing close tasks (e.g., working on a computer, sewing, etc.)
- Eye strain and fatigue after reading or looking at nearby objects for extended periods
- Difficulty seeing small print, particularly in low-light conditions
- Headaches or discomfort after prolonged reading
- The need to hold reading material farther away than usual

In Ayurveda, Presbyopia is described in *Dwitiya Patala Gata Timira* where patients experience decreased near vision. the pathology behind the disease is mainly *Vata-Pitta-Kapha Dosh* imbalance which cause vitiation of second *Patala*⁶.

Diagnosis Of Presbyopia-

Diagnosing presbyopia typically involves a comprehensive eye examination by an ophthalmologist. A key part of the diagnosis includes measuring the eye's ability to focus at different distances and assessing any changes in the flexibility of the lens. Early diagnosis is crucial for determining the right course of treatment, as well as ruling out other potential causes of blurry vision, such as refractive errors or health conditions.

Treatment Options for Early Presbyopia-

While presbyopia cannot be cured, there are several effective treatments available to manage the symptoms and improve quality of life. These include:

1. Reading Glasses: The most common solution for presbyopia, reading glasses help magnify close-up objects and improve clarity for tasks like reading, sewing, and using a Smartphone.
2. Contact Lenses: Multifocal contact lenses can be prescribed to correct presbyopia. These lenses provide multiple focal points for near, intermediate, and distance vision, reducing the need for multiple pairs of glasses.
3. Surgical Interventions: Surgical options such as monovision LASIK (where one eye is corrected for distance and the other for near vision) or lens implants may be considered for individuals who want a more permanent solution. However, these options may not be suitable for everyone and carry some risks.
4. Presbyopia-Correcting Intraocular Lenses (IOLs): For those who need cataract surgery or lens replacement, presbyopia-correcting IOLs can restore near vision without the need for glasses.
5. Lifestyle Adjustments: Adjusting to a lifestyle that includes more frequent breaks from close-up tasks, using proper lighting, and practicing eye exercises can help alleviate symptoms.

6. Role of Ayurvedic therapeutics as treatment and prevention: Principle behind Ayurvedic science is to treat the root cause. Kriyakalpa procedures help to maintain the balance between *Tridosha* and strengthen the ocular structures. In *Tarpan*, *Aschotana*, *Seka* and *Putpaka* medicated *Ghrīta* or decoctions are hold on the ocular surface. Corneal layers being lipophilic help penetration of the drug molecules in the aqueous circulation. This strengthens intraocular structures participating in accommodation like lens, lens capsule, ciliary muscle, zonules of zinn etc⁹.

Prevention And Managing Risk Factors

While presbyopia is largely unavoidable, there are steps individuals can take to slow the progression of symptoms and manage risk factors: Limit Screen Time: Taking regular breaks from screens using the 20-20-20 rule (every 20 minutes, look at something 20 feet away for at least 20 seconds) can help reduce digital eye strain and prevent early onset.

Maintain a Healthy Diet: A diet rich in antioxidants (such as vitamins A, C, and E) and omega-3 fatty acids can help protect the eye from oxidative damage and support overall eye health. Ayurvedic formulations like *Triphala Choorna*, *Saptamrit Loha* etc are of great benefit in ocular health⁹.

Protect Eyes from UV Light: Wearing sunglasses with UV protection help prevent cataracts and lens damage that could contribute to early presbyopia.

Manage Chronic Conditions: Regular monitoring and management of conditions like diabetes and hypertension can reduce the risk of ocular complications, including presbyopia.

CONCLUSION:

Presbyopia in early age is becoming a more prevalent concern, with modern lifestyles and health factors playing a significant role in accelerating its onset. While the condition cannot be completely avoided, early diagnosis, lifestyle adjustments, and appropriate treatment options can help manage symptoms and improve quality of life. As awareness grows about presbyopia's early appearance, individuals are encouraged to seek regular eye examinations and take proactive measures to protect their vision as they age. Use of Ayurvedic formulations and therapeutic procedures in healthy human beings can help to maintain the wellbeing of sense organs and delay the process of aging.

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