

RASAYANA AND DEGENERATIVE EYE DISORDERS

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ABSTRACT

As eyes are in continuous exposure to the light and face both anatomical as well as functional deterioration with increasing age, there is a high incidence of issues in visual functioning of the eye that affects day to day activities of the individual and has a great impact on the physical, social and mental state of a person. As with today's world, the intake of unhealthy food and improper lifestyle is the main cause of to produce *Ama*, which is the major cause of development of all the diseases including ocular disorders. *Rasayana Chikitsa* is well known for its effective and potential role in degenerative disorders.

Keywords: *Rasayana*, Degenerative eye disorders, *Chyavanprasha Avaleha*, Oxidative stress.

INTRODUCTION

Netra is the important sense organ of the body, and it should be of prime concern of every individual to take proper care of the eyesight. *Rasayana Chikitsa operates* by maintaining the equilibrium of *Doshas*, *Agni*, *Dhatus* and proper ex-

cretion of *Mala* along with a healthy state of mind. *Rasayana Chikitsa* emphasises on both treating the ailment and prevention of the disease. As eyes are in continuous exposure to the light and face both anatomical as well as functional

deterioration with increasing age, there is a high incidence of issues in visual functioning of the eye that affects day to day activities of the individual and has a great impact on the physical, social and mental state of a person. The word *Rasayana* is made up of two words “*Rasa*” and “*Ayana*”, which is taken as *Rasa Gamanam* i.e, transportation or transformation of the *Rasa* thus maintaining a proper state of all *Dhatu*s. As with today’s world, the intake of unhealthy food and improper lifestyle is the main cause for the production of *Ama*, which is the major cause of development of all the diseases including ocular disorders. *Rasayana Chikitsa* is well known for its effective and potential role in degenerative disorders. Among the various classifications of the diseases, *Swabhava Bala Pravritta Vyadhi* consists of *Kshudha* (hunger), *Pipasa* (thirst), *Nidra* (sleep), *Jara* (Ageing) and *Mrityu* (death). As these states cannot be cured completely problems like *Jara* can be delayed and problems occurring due to increasing age can be prevented.

AIM & OBJECTIVE:

1. To explore Ayurvedic text to understand the concept of *Rasayana* in the management of degenerative eye disorders

2. To mention various drugs possessing *Rasayana* properties that can prevent various degenerative eye disorders

MATERIAL AND METHODS:

There is a various classification of *Rasayana* presents in the ancient texts:

(i) *Kamyas Rasayana*- to fulfil a particular desire- *Prana Kamyas*, *Medha Kamyas*, *Srikamyas*
(ii) *Naimittika Rasayana*- used to treat the disease for example- *Shilajitu* in *Prameha*, *Bhallataka* in *Amavata*, *Brahma Rasayana*, *Triphala Rasayana*, etc.

(iii) *Ajastrika Rasayana*- used on regular basis- *Ksheerghrita Upyoga*

According to method:

(i) *Kutipraveshika Rasayana* – also known as indoor therapy
(ii) *Vatatapika Rasayana*- also known as outdoor therapy

According to contents of *Rasayana*-

(i) *Aushadha Rasayana*
(ii) *Ahara Rasayana*
(iii) *Achara Rasayana*- various *Hita Viharas* are explained in the *Samhita* that acts as *Chakshushya*. For example,

<i>Padabhyanga</i>	<i>Chakshushya</i> ¹ , <i>Drishti Prasadana</i> ²
<i>Chatradharana</i>	<i>Chakshushya</i> ³
<i>Padatra Dharana</i>	<i>Chakshushya</i> ⁴ , <i>Chakshu Raksha</i> ⁵
<i>Snana</i>	<i>Sarva Indriya Vibodhana</i> ⁶
<i>Shiten Shirasah Snana</i> (cold water head bath)	<i>Chakshushya</i> ⁷
<i>Pada Prakshalana</i>	<i>Chakshu Prasadana</i> ⁸
<i>Chankramana</i>	<i>Indriya bodhanama</i> ⁹
<i>Anjana</i> ¹⁰	

According to mode of action:

(i) *Sanshodhana*- applied for body purification, eg. *Soma Rasayana*

(ii) *Sanshamana*- used to pacify the vitiated *Doshas* inside the body, *Nagbala Rasayana*, *Guduchi*.

What is Ageing?

Ageing is the process of progressive loss of functional capacity and an increase in the risk of diseases that occurs with advancing age. There are different ways or types of ageing i.e, Successful ageing with good health without any disease or functional deficiency, ageing occurring with disease and functional decline ageing which includes poor cognition, immunological impairment, etc.

What is degeneration?

Degeneration is the process of deterioration and loss of specialized function of the cells of a tissue or an organ. Degeneration can also be taken as retrogressive changes, reversible cell injury or non-lethal cell injury. As in degeneration, the nucleus of the cell remains alive it is possible to obtain the original status of the cell or tissue by removing the causative factor, unlike the cell death.

Various examples of degenerative eye disorders:

Conjunctiva	Concretion
	Pinguecula
	Pterygium
Cornea	Calcific band keratopathy
	Arcus senilis
	Terrien's ulcer
	Salzmann nodular degeneration
	Lipid keratopathy
Lens	Cataract
Vitreous	Vitreous degeneration, Vitreous detachment,
Retina	Age related Macular Degeneration
	Degenerative retioschisis
	Paving stone degeneration
	Peripheral reticulae cystoids degeneration
	Microcystoid degeneration
	Albinotic spot
Refractive error	Presbyopia
Temporal arthritis	

Various Rasayana described in Charak Samhita:

Chyavanaprasha Rasayana	Balamindriyanam ¹¹ 73-17
Amalaki Rasayana	Indriyabala Samudhita ¹² 75-18
Haritaki Rasayana	Sareerendriya Budhibala ¹³ 76-19
Amalaki Ghrita	Sthirendriyam cha Atibalendriyam ¹⁴ 2-5-23
Amalakayas brahma rasayana	IndriyaBalapradam ¹⁵ 3-6-36
Lauhadi rasayanam	Ati Balendriyam ¹⁶ 3-22-37
Dwiteya indrokta rasayanam	Indriya Balapradam ¹⁷ 1-4-24-56

Gada Nigraha has stated that Triphala in the form of paste, powder and decoction is useful in all conditions of visual disturbances.

Various Rasa Aushadhis that act as Chakshushya:

Swarna	Chakshushyam Ayushpradam ¹⁸
Yashada	Nayanamaya Nasakaram ¹⁹
Kasis	Netryam (Rasa Ratna Sammuchaya)
Khatika	Netraamaya Nishudhini(rasatarangani)
Samudraphena	Chakshushya ²⁰
Loha	Nayanamyagham (Rasa Tarangani)
Gairik	Netryam
Srotanjan	Netryam

Abhraka	Chakshushya ²¹
Tamra	Netramayeshu Uttamam

DISCUSSION

As oxidative stress plays a major role in causing degenerative eye disorders by the production of free radicals mainly oxygen-free radicals known as Reactive oxygen species (ROS). This ROS is responsible for the development of diseases like age-related macular degeneration²², cataract²³, premature retinopathy²⁴, uveitis²⁵, keratitis²⁶, and ocular inflammation²⁷. The *Rasayana Dravya* contains antioxidants that inhibit the process of oxidation and free radical production thus preventing the above-mentioned diseases. The superoxide dismutase present in the *Rasayana* drug catalyzes the dismutation of superoxide radicals into ordinary molecular oxygen. Thus, rebuilding the ageing tissue. *Rasayana* drug also possesses an immunomodulatory effect thus protecting against various primary and secondary eye disorders. *Rasayana* drugs are rich in vitamin C which aids in regulating the normal level of glutathione which is necessary for the normal metabolism of the lens. The tannins and polyphenol present in *Rasayana* drugs act as radioprotective agents thus preventing the risk of development of pterygium, cataract and catarrhal conjunctivitis. Cysteine present in *Rasayana* helps to repair lens protein.

CONCLUSION

As degenerative eye disorders are the major cause of visual disturbances and mostly their risk of occurrence increases with increasing age it is necessary to prevent them at an early stage. The unhealthy lifestyle and inclination of people towards the fast food that results in *Mandagni* and an increase in oxidative stress which are the major factor for degeneration. The *Rasayana Chikitsa* helps to treat as well as prevent these disorders. *Rasayana* drugs act as an immunomodulator, antioxidant, adaptogenic, cytoprotective, and increases blood circulation.

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