

ANCIENT HISTORY OF OCULAR PHOTO-COAGULATION

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ABSTRACT

Theophilus Bonetus is credited for the first description of central *Scotoma* following solar burns. Even Plato's *Phaedo* is often referred to contain a passage on which Socrates cautions his followers, not to look directly at the Sun during an eclipse. Moran-Salus and Myer-Schwikerath added a new dimension by therapeutically using solar burns in the management of ocular diseases. These two investigators are rightfully therefore, historically credited as the first to report therapeutic use of solar burns in Ophthalmology. Perhaps, under the mistaken impression that all of the ancient Indian Science is a Greek legacy or for the fact, that no proper readable presentation of all the ancient Indian literary contributions exist for research, the ancient reference has consistently been overlooked by historians of Science. In this article it is intended to bring to notice, the existence of a reference amidst the venerable ancient literature of the orient viz. *Suryashataka* of Mayura Bhatta, a 7th century poet.

Historically, Theophilus Bonetus¹, a clinician in the ancient city of Geneva, is credited for the first description of central *scotoma*, following solar burns. Even Plato's "*Phaedo*" is often referred to contain a passage in which Socrates cautions, his followers, not to look directly at the sun during an eclipse. Although these are admittedly mere references to the solar chorioretinitis, only in the late 1940's did the work of Moran-Salus² and Myer-Schwikerath³ add a new dimension by therapeutically using

solar burns in the management of ocular diseases. These two investigators are rightfully therefore historically credited as the first to report therapeutic use of solar burns in ophthalmology.

However, it is the intent of this publication to bring to notice, the existence of a reference amidst the venerable ancient literature of the orient. The ancient reference has consistently been overlooked by historians of science, perhaps under the

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mistaken impression that all of the ancient Indian science is a Greek legacy or for the fact, that no proper readable presentation of all of the ancient Indian literary contributions exist, for research. Whatever may be the cause, it is unpardonable to allow the enigma to continue.

In our presentation, we refer to the ancient Sanskrit text of "Suryashataka"⁴ by Mayura Bhatta, a 7th century poet. *Epistemology*, Surya means, sun; shataka is 100 verses. This means that the text is a compendium of 100 verses extolling the Sun-God. Interestingly this work, has not remained without translation to non-Indian languages. For, Carlo Wernheimer in 1605, attempted a translation into Italian. Twelve years later, an english translation was published by Columbia University Press, in New York.

Mayura's Suryashataka, cannot be easily dated, as it was the practice in ancient India, authorship of the work was secondary to the patronage and therefore, many of the authors were referred to as the embellishment of a particular king. Mayura was known in the history of Sanskrit literature as one of the nine gems of king Vikramaditya. Nevertheless, references to Mayura the poet, exist in the works of Vamana-Bhatta, who lived around 1441 AD; Madhava 1300 AD; Jayadeva 1183 AD to name a few. ⁵Reports also exist to refer to

Mayura as a physician. Dr. F. Max Mueller⁶, interpreted Jangulika, as poison doctor and even placed the poet's time and date in the neighbourhood of 7th century.

The Suryashataka of Mayura, has special importance to us, for Mayura himself admits that his work is an attempt to propitiate, the Sun-God, in 101 verses to atone for his affliction to tuberculosis, which took the toll of the poet's eye sight. It is admitted, by the poet, that after the completion of the book he got a remission and the sight was restored.

The Suryashataka, is a very fine piece of poetry in whose beginnings the magnificence of the Sun-God is described. Specifically, in the 40-45 stanzas, the poet describes the beneficial aspects of sun's rays to life and its maintenance and subsequently the 60th stanza, describes, how a blind eye from tuberculosis is cured by the munificence of the Sun-God. Surprisingly, the later verses refer to the yogic penitence necessary for beneficial propitiation, and in here, refers to how the poet get remission of the eye disease.

A gross analysis of the allegorical poetry of Mayura, can certainly offer certain very valuable inferences. Mayura, was a victim of tuberculosis and his eyes were damaged due to the disease. Propitiating the Sun-God, by the practice of the yogic

meditation, the sun, very munificiently bestowed a remission in the disease process.

Analytically, this would mean that Mayura was a patient of Eale's disease and that the yogic feat of staring at the Sun directly could have in all probability caused therapeutic ocular burns and thereby arrested the

disease progress.

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सारांश

प्रकाश-स्कन्दन जनित चाक्षुष रोग का प्राचीन इतिहास

लक्ष्मीपूरम पी श्रीवत्स

सूर्य-रश्मियों द्वारा दग्ध होने पर उत्पन्न अन्धत्व का सर्वप्रथम वर्णन प्रस्तुत करने का श्रेय थियोफैलस बोनिटस को प्राप्त है। प्लोटो से सम्बन्धित एक संदर्भानुसार, सुक्रात ने अपने अनुयायियों को सचेत किया था कि सूर्य-ग्रहण के समय सूर्य की ओर सीधे न देखें। नेत्र रोग चिकित्सा में सूर्य-रश्मियों द्वारा दग्ध करने की विधि का प्रयोग करके मोरानसेलस तथा मैयर-शवीकेरथ ने इसको एक नया आयाम दिया तथा इस बात को सर्वप्रथम बतलाने का ऐतिहासिक श्रेय वास्तव में इन ही दो अन्वेषकों को प्राप्त हुआ। कदाचित इस भ्रान्तिपूर्ण विचार से कि प्राचीन समस्त भारतीय विज्ञान यूनान देश की बपौती है अथवा भारत के उपलब्ध समस्त प्राचीन वाचनीय साहित्यिक योगदान को यथोचित रूप से अनुसन्धानार्थ प्रस्तुत नहीं करने के कारण प्राचीन सन्दर्भों की विज्ञान के इतिहासकारों द्वारा सदैव उपेक्षा होती रही है। अतः पूरब के आदरणीय प्राचीन साहित्य के एक सन्दर्भ 7वीं शताब्दी के एक कवि मयूर भट्ट कृत सूर्यप्रकाश की उपस्थिति की ओर इस प्रकाशन में ध्यानाकर्षित करने का प्रयास किया गया है।