Seasonal hyper acute panuveitis: an unfathomed menace causing blindness in Nepal

U. H. Sapkota[1], S. Shrestha[2] and A. B. Shrestha[1]

1) *M Abdur Rahim Medical College, Dinajpur, Bangladesh and* 2) *KIST Medical College, Imadol, Patan, Nepal*

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Corresponding author. A.B. Shrestha, M Abdur Rahim Medical College, Diajpur, Bangledesh.
E-mail: abigan17@gmail.com

Dear Editor,

With the initial cases noted and described in Pokhara in the Kaski District of Nepal back in 1975, Seasonal hyperacute panuveitis (SHAPU) gets its name from seasonal and cyclical recurrence, rapidly progressing clinical course and involvement of both the anterior and posterior segment of the eye [1]. After the discovery of its perplexing outbreak, it was described by Malla et al. as endophthalmitis may have been probably caused by the Tussock moth in 1978. Later, after further detailed study by Upadhyay et al., it was named Seasonal Hyperacute Panuveitis (SHAPU), describing it as a baffling sight threatening panuveitis that presented as a white pupil in red eyes rapidly progressing to loss of vision [2]. To date its cases are reported only from Nepal.

The second similar case reappeared 2 years later in 1977 with an identical presentation and outcome, which akin to the first outbreak began in September and lasted until January of the next year. Since then, SHAPU has maintained a definitive cyclic pattern of an epidemic outbreak every alternating year i.e. 1977, 1979, 1981, 1983 and so on, with a seasonal pattern of appearing right after the monsoon season (August to September) until the peak of winter (December to January) [3]. However, unusual summer and even year sporadic outbreaks of SHAPU have also been recorded in some parts of Nepal which have created a diagnostic and etiological dilemma [2].

Sudden onset of painless unilateral ocular redness, loss of vision, and leukocoria as a result of massive exudation in the vitreous cavity, with the appearance of hypopyon and dense fibrinoid reaction in the anterior chamber, difficulty in dilating pupil and inability to visualize are some characteristic features of SHAPU [3].

As per the study made by Manandhar et al. at the Tertiary referral center in Nepal, SHAPU was recognized as one of the most common causes of panuveitis among people of all ages (15·2%) in Nepal and the commonest cause of both uveitis and panuveitis (27·7%) among Nepalese children [4]. The first description was assembled 50 years back to this date, we have come a long way in understanding the course and outcome of the disease, yet many more aspects of it remain a mystery waiting to be unveiled. Understanding its true cause, nature, pathology, and accurate treatment is still a challenge to the entire medical fraternity. Though various theories have surfaced trying to explain the causative pathology including an Immunological one, describing it as an immunological response to an antigen that causes inflammation of the uvea, and the next Infective one, suggesting its infective course with association to various suspected bacteria (*Staphylococcus aureus, Streptococcus pneumoniae,* and *Acinetobacter*) and viruses (human anelloviridae and varicella zoster virus) and Moths of the *Gazalina* genus as the host, the exact cause is still an enigma.

A prospective longitudinal study of all the cases of SHAPU observed at Tilganga Institute of Ophthalmology from 2009 to 2010 made by Manandhar et al., in 2018 revealed that of 66 identified cases of SHAPU, 23% reported a recent history of contact with white moth and bacteria were isolated from the vitreous of 9 eyes [5]. They concluded the pivotal role of a bacterial cause than viral and seemingly suspicion of moth in its pathogenesis. The abundance of the moths in the SHAPU endemic area and its dovetailing life cycle with the seasonal and cyclical appearance of SHAPU explicates on itself the influence of moths over the disease, but however, the summer and even year outbreaks have resulted in puzzles in delineating the true causative pathology of SHAPU.

With this huge incidence and inexorable potential physical, psychological, and financial burden, SHAPU unequivocally is a subject that needs further better and detailed study. It is high time that this condition acquires global recognition and collaborative work with ophthalmologists, microbiologists, virologists, entomologists, epidemiologists, immunologists hand in hand both on a national and global levels is desperately needed. With this editorial, we would like to aware people from Nepal to stay alert for this dreadful devastating condition and to take measures as soon as possible in the nearby hospital if suspicion as the winters are nearby and there is meager time for the 2022 outbreak.

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Conflict of interest

The authors declare no conflict of interest.

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