Seasonal hyperacute panuveitis (SHAPU) and MOTH SAGA

Purpose: Seasonal Hyperacute Panuveitis (SHAPU) is a devastating eye disease of unclear aetiology reported only from Nepal, occurring cyclically during the autumn of odd years, since 1975. It's unilateral, mostly affecting healthy children, causing sudden and profound loss of vision within a week. So, this study was aimed to confirm the role of moths in SHAPU cases.

Method: Case?Control (1:3 ratio) multicentric study conducted during 2017 SHAPU outbreak. Univariate and multivariate analysis were performed.

Results: A total of 35 cases and 105 controls identified across the country. Mean age was 11 years and 71% of cases were children female (57.1%vs 42.9%) and 82.6% of cases occurred during August?September.

SHAPU cases were 8.7 times more likely to report exposure to white moths (95% Confidence Interval). The unusual flow of white moths present in 74.3% SHAPU cases before contracting the disease. Contact history with moth was present in 48.8% of cases and 11.4% of controls. Bushes around the home and physical contact with livestock animals were also more commonly reported among SHAPU cases compared to controls.

Conclusion: The white moths remain the strongest risk factor for SHAPU causation. Future studies on moth lifecycle, toxin analysis, hypersensitivity reactions, genotyping, phenotyping and identifications of the biomarkers are needed to solve the mystery of moth saga.