



The Impact of Perceived Stress on Uveitis Onset and Flare-ups

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Introduction

- Non-infectious uveitis is the most common subtype of uveitis. The current pathophysiological hypothesis suggests the presence of an environmental trigger in a genetically predisposed individual, leading to the breakdown of ocular immune privilege causing an inflammatory response against ocular antigens, resulting in tissue damage.
- There is evidence associating Psychological stress as a trigger in various inflammatory diseases, such as inflammatory bowel diseases and psoriasis. Moreover, routine clinical encounters with uveitis patients suggest that many individuals report experiencing a stressful or traumatic event, or a series of such events, preceding their diagnosis.
- This study aimed to assess the impact of psychological stress on the onset and disease flare-ups of noninfectious uveitis.

Results

- 124 patients were handed the questionnaires, completed by 70 (56.4%) patients to date.
- The majority of patients who filled out the questionnaire (92.8%, 65/70) reported 1 or more life events perceived as stressful, and most of them (76.9%, 50/65) had at least 1 stressful event recognized as traumatic according to the PDS-5 questionnaire. Respectively, most participants ranked high-stress scores in the PSS questionnaire (72.8%, 51/70).
- 16 of 50 patients (32%) who perceived the stressful event as traumatic ranked as severe symptoms according to the PDS-5 questionnaire (scoring more than 33 points).
- The interval between the stressful event and the disease breakout was reported within 3 months in 38.5% (27/70), between 3 to 6 months in 14.2% (10/70), and between 6 to 12 months in 20% (14/70).
- Twenty percent (14/70, 20%) of patients reported no proximity (more than 12 months) or relation between any stressful event and uveitis diagnosis or flare-up.

Discussion

- The high proportion of responders with at least one stressful event (92.8%) and the high percentage of patients (76.9%) identifying the event as traumatic suggest a potential link between uveitis and noninfectious uveitis.
- The main limitation of our study is a selection bias, as roughly 50% of the patients filled out the questionnaires suggesting that individuals who experienced stress might have been more inclined to complete them.

Methods

- Psychological stress was evaluated using three validated questionnaires assessing perceived stress and traumatic events.
 - The perceived stress scale (PSS):
 - Low stress- 0-13 points.
 - Moderate stress- 14-26 points.
 - High stress- 27-40 points.
 - The post-traumatic diagnostic scale-5 (PDS-5):
 - Qualitative definition with a quantitative cutoff of 33 points.
 - A questionnaire about the type of stressful event
- Exclusion criteria:
 - Patients who could not fulfill the questionnaire due to the language barrier
 - Infectious uveitis
- Data were analyzed for a correlation between stressful events and uveitis.

Conclusion

- Our findings support the hypothesis that stress may play a role in uveitis, a multifactorial disease group, similar to other known inflammatory conditions.
- We hypothesize that the severity of psychological stress and the temporal proximity to the stress-inducing event are positively correlated with the likelihood of uveitis onset or flare-up.

