

## BRIEF COMMUNICATION

## Drug-induced macular oedema

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A comprehensive review of the literature was undertaken, focusing on macular oedema induced by drug usage. The findings delineate two distinct categories of macular oedema: one induced by drugs and the other precipitated by diseases. It was observed that the symptoms associated with drug-induced macular oedema could be alleviated by moderating the dosage or frequency of the drug intake. However, macular oedema resulting from diseases, such as diabetes, may not exhibit similar improvements.

Li et al. reported that a 38-year-old Chinese woman with secondary progressive multiple sclerosis experienced limb numbness and leg fatigue [1]. After 4 months of siponimod treatment, she developed mild macular oedema. The condition resolved upon discontinuing the medication and didn't recur when the treatment was resumed [1].

Khan et al. presented that multiple sclerosis (MS) is a prevalent neurological disorder affecting motor and sensory pathways [2]. Fingolimod, a sphingosine 1-phosphate modulator, is used for relapsing-remitting MS. It can cause macular oedema, a serious side effect. Regular ophthalmology examinations are crucial for patients on fingolimod. Treatment options for macular oedema include nonsteroidal anti-inflammatory drugs, acetazolamide, and corticosteroids [2].

Ahmad et al. revealed that oral drugs can cause ocular side effects, affecting various eye parts and potentially leading to irreversible vision loss [3]. However, strategies like monitoring for toxicity, dose reduction, or drug substitution can mitigate this risk. Good clinician-ophthalmologist communication is crucial. Infrequent or delayed side effects may go unnoticed in clinical trials, underscoring the importance of adverse event reporting [3].

Sinnathamby et al. reviewed and revealed that oedema, a fluid accumulation in body tissues, can be caused by various medications and vascular or lymphatic issues [4]. It often affects peripheral areas like feet and legs but can also impact organs like the brain or eyes. Understanding the pathophysiology of drug-induced oedema, which can be fatal in cases like ACE inhibitor-induced angioedema, is crucial for its treatment and prevention. Recent advancements have shed light on the mechanisms of drugs like dihydropyridines and thiazolidinediones in causing oedema [4].

The literature review reveals two types of macular oedema: drug-induced and disease-induced. Drug-induced macular oedema symptoms can be alleviated by adjusting drug dosage

or frequency. However, disease-induced macular oedema, such as that from diabetes, may not show similar improvements. Case studies highlight the risk of macular oedema in patients with multiple sclerosis undergoing certain treatments. Oral drugs can cause ocular side effects, potentially leading to irreversible vision loss. Strategies like toxicity monitoring, dose reduction, or drug substitution can mitigate this risk. Understanding the pathophysiology of drug-induced oedema is crucial for its treatment and prevention.

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## COMPETING INTERESTS

The author declares no competing interests.

## ADDITIONAL INFORMATION

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