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Uveitis: Ocular Manifestations of Rheumatic Diseases and Multidisciplinary Approaches.

Karollyne Francisco Prado [1]; Laís Cristina Couto [2]; Joyce Emanuelle Moreira [3]; André Sardinha Bontempo [4]; João Luiz Duarte Santos[5]

LITERATURE REVIEW

Resumo:

A uveíte, uma inflamação ocular que afeta a úvea, é frequentemente associada a doenças reumáticas, como artrite reumatoide e lúpus eritematoso sistêmico. Essa interseção entre oftalmologia e reumatologia demanda uma abordagem multidisciplinar para o diagnóstico e tratamento adequados. A compreensão das manifestações oculares dessas doenças reumáticas é crucial para evitar danos permanentes à visão e melhorar a qualidade de vida dos pacientes. Objetivo: Este estudo visa realizar uma revisão sistemática da literatura para analisar as manifestações oculares de doenças reumáticas, com foco na uveíte, e explorar as abordagens multidisciplinares utilizadas para o seu manejo. Metodologia: Utilizando o checklist PRISMA, realizamos uma busca nas bases de dados PubMed, Scielo e Web of Science por artigos publicados nos últimos 10 anos. Os descritores utilizados foram "uveíte", "doenças reumáticas", "manifestações oculares", "abordagem multidisciplinar" e "tratamento". Os critérios de inclusão foram estudos originais e revisões que abordassem a relação entre uveíte e doenças reumáticas, enquanto os critérios de exclusão foram estudos duplicados, não relacionados ao tema e com metodologia inadequada. Resultados: Os resultados destacaram a prevalência da uveíte em várias doenças reumáticas, os diferentes tipos de inflamação ocular associados e as estratégias terapêuticas multidisciplinares adotadas. Foram identificados tratamentos eficazes para controlar a inflamação e preservar a visão, enfatizando a importância da colaboração entre oftalmologistas e reumatologistas. Conclusão: A abordagem multidisciplinar é fundamental no manejo da uveíte associada a doenças reumáticas, permitindo um diagnóstico precoce, tratamento eficaz e prevenção de complicações. Esta revisão destaca a importância do trabalho conjunto entre especialidades médicas para melhorar os resultados clínicos e a qualidade de vida dos pacientes afetados por essa condição.

Palavras chave: "uveíte", "doenças reumáticas", "manifestações oculares", "abordagem multidisciplinar" e "tratamento".

ABSTRACT

Uveitis, an ocular inflammation that affects the uvea, is often associated with rheumatic diseases such as rheumatoid arthritis and systemic lupus erythematosus. This intersection between ophthalmology and rheumatology demands a multidisciplinary approach for adequate diagnosis and treatment. Understanding the ocular manifestations of these rheumatic diseases is crucial to prevent permanent damage to vision and improve patients' quality of life. Objective: This study aims to conduct a systematic review of the literature to analyze the ocular manifestations of rheumatic diseases, with a focus on uveitis, and explore the multidisciplinary approaches used for its management. Methodology: Using the PRISMA checklist, we searched the PubMed, Scielo and Web of Science databases for articles published in the last 10 years. The descriptors used were "uveitis", "rheumatic diseases", "ocular manifestations", "multidisciplinary approach" and "treatment". The inclusion criteria were original studies and reviews that addressed the relationship between uveitis and rheumatic diseases, while the exclusion criteria were duplicate studies, unrelated to the topic and with inadequate methodology. Results: The results highlighted the prevalence of uveitis in several rheumatic diseases, the different types of associated ocular inflammation and the multidisciplinary therapeutic strategies adopted. Effective treatments have been identified to control inflammation and preserve vision, emphasizing the importance of collaboration between ophthalmologists and rheumatologists. Conclusion: A multidisciplinary approach is fundamental in the management of uveitis associated with rheumatic diseases, allowing early diagnosis, effective treatment and prevention of complications. This review highlights the importance of working together between medical specialties to improve clinical outcomes and quality of life for patients affected by this condition.

Keywords: "uveitis", "rheumatic diseases", "ocular manifestations", "multidisciplinary approach" and "treatment".

Instituição afiliada – 1 Instituto de olhos da ciências médicas (IOCM); 2 Pontifícia Universidade Católica de Minas Gerais - PUC MG; 3 Faculdade Ciências Médicas de Minas Gerais - FCMMG; 4 Universidade Federal de Mato Grosso do Sul (UFMS); 5 Faculdade de Minas - Faminas -BH
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Autor correspondente*: Karollyne Francisco Prado, igorcsantos01@gmail.com*

INTRODUCTION:

Rheumatic diseases represent a diverse set of medical conditions characterized by chronic inflammation and joint pain, often affecting not only the musculoskeletal system but also distant organs and systems. Among the systemic manifestations of these diseases, ocular complications occupy a significant place, with uveitis standing out as one of the most common and potentially debilitating. Uveitis is an inflammation of the uvea, the middle layer of the eye, which includes the iris, ciliary body and choroid, and can lead to vision loss if not treated properly.

When addressing the first topic, it is essential to understand the intersection between rheumatic diseases and ocular manifestations, especially uveitis. Many rheumatic diseases, such as rheumatoid arthritis, ankylosing spondylitis, Behçet's disease and systemic lupus erythematosus, have been associated with the occurrence of uveitis. This relationship can be attributed to the inflammatory nature of these conditions, which can trigger autoimmune processes capable of affecting the ocular system. Uveitis can present in several forms, including anterior, intermediate, posterior, and panuveitis, each with specific characteristics of ocular inflammation and potential complications.

The second topic highlights the importance of a multidisciplinary approach in the management of uveitis associated with rheumatic diseases. Due to the complexity of the condition and the need for specialized interventions in both ophthalmology and rheumatology, collaboration between ophthalmologists and rheumatologists is essential. This multidisciplinary approach allows for more accurate diagnosis, more effective therapeutic planning, and a better understanding of the interactions between ocular inflammation and underlying rheumatic conditions. Furthermore, it facilitates continuous monitoring of the disease and adaptation of treatment as necessary, aiming not only to control inflammation, but also to preserve vision and improve the patient's quality of life.

The therapeutic approach to uveitis associated with rheumatic diseases aims primarily to control ocular inflammation to preserve vision and improve patients' quality of life. To achieve this goal, a variety of therapeutic options are available, including anti-

inflammatory medications, corticosteroids, and immunosuppressive therapies. Effective control of inflammation is crucial to prevent irreversible eye damage and prevent complications such as cataracts, glaucoma and retinal detachment.

Preserving vision is one of the main goals of uveitis treatment, as visual loss can have a significant impact on the patient's quality of life. Therefore, the choice of treatment must be carefully considered, taking into account not only efficacy in reducing inflammation, but also potential side effects and patient tolerability.

Furthermore, a holistic approach that takes into account not only the clinical aspects of the disease, but also the patient's emotional and social needs, is essential to promote a better quality of life. This may involve psychological support, guidance on a healthy lifestyle and adaptations to daily activities to deal with possible visual limitations.

In summary, the therapeutic approach to uveitis associated with rheumatic diseases seeks not only to control inflammation and preserve vision, but also to improve the patient's overall quality of life. This requires a careful assessment of the risks and benefits of each therapeutic option, as well as an integrated approach that considers the physical, emotional and social aspects of the condition.

METHODOLOGY

To conduct this systematic literature review, we followed the guidelines established by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) checklist. We used the PubMed, Scielo and Web of Science databases to identify relevant studies published in the last 10 years that addressed the topic of uveitis associated with rheumatic diseases. The descriptors used were: "uveitis", "rheumatic diseases", "ocular manifestations", "multidisciplinary approach" and "treatment".

For the inclusion criteria, original studies and reviews were considered that investigated the relationship between uveitis and rheumatic diseases, addressed therapeutic strategies for managing the condition, were published in peer-reviewed journals and were available in full text. Furthermore, studies that presented relevant results for understanding the pathophysiology, diagnosis and treatment of uveitis

associated with rheumatic diseases were included.

On the other hand, for the exclusion criteria, duplicate studies, editorials, letters to the editor and studies with inappropriate methodology were removed. Studies that did not directly address the relationship between uveitis and rheumatic diseases were also excluded, as well as those that were not available in full text or were not written in English, Portuguese or Spanish, the languages the researchers understand.

Rigorous application of these criteria resulted in the selection of 14 relevant studies that provided important insights into the review topic, allowing for a comprehensive and up-to-date analysis of uveitis associated with rheumatic diseases and their multidisciplinary therapeutic approaches.

RESULTS

The relationship between uveitis and rheumatic diseases is significant, representing a complex interaction between the ocular system and the immune system. Several rheumatic diseases, such as rheumatoid arthritis, ankylosing spondylitis, and systemic lupus erythematosus, are associated with the development of uveitis, an inflammation of the ocular uvea. This association stems from the autoimmune nature of these conditions, where the immune system mistakenly attacks healthy tissues, including eye tissues. The presence of systemic inflammation in these diseases can trigger an inflammatory response in the eye, leading to the development of uveitis. Furthermore, genetic and environmental factors also play an important role in the susceptibility to uveitis in patients with rheumatic diseases.

On the other hand, uveitis can be one of the first signs of rheumatic disease in some patients, making it a useful marker for early diagnosis and initiation of appropriate treatment. Therefore, recognizing the association between uveitis and rheumatic diseases is fundamental in clinical practice, as it allows an integrated approach in the management of these conditions. Understanding the mechanisms underlying uveitis in these rheumatic diseases may lead to more targeted and effective therapeutic strategies aimed at not only controlling ocular inflammation but also treating the underlying rheumatic disease, thereby improving clinical outcomes and patient quality of life.

Uveitis comes in different forms and patterns depending on the location of the inflammation within the eye. One of the most common forms is anterior uveitis, characterized by inflammation in the iris and ciliary body. Patients with anterior uveitis often experience eye pain, redness, sensitivity to light, and blurred vision. Intermediate uveitis mainly affects the ciliary body and the vitreous, while posterior uveitis involves inflammation in the choroid and retina. Panuveitic uveitis, on the other hand, involves inflammation in all parts of the uvea. These different forms of uveitis may have different clinical presentations and require specific therapeutic approaches.

The severity and course of uveitis can also vary widely between patients. Some may experience acute episodes of inflammation, while others may develop a chronic, recurrent form of the disease. Furthermore, uveitis can be unilateral or bilateral, affecting one or both eyes simultaneously. Accurate identification and characterization of the type of uveitis are essential for treatment planning and patient prognosis. Therefore, a complete ophthalmological evaluation, including imaging exams and laboratory tests, is essential to determine the extent of inflammation and guide the most appropriate therapeutic approach for each case.

Uveitis associated with rheumatic diseases can have a significant impact on patients' vision, especially if not adequately treated. Eye inflammation caused by uveitis can lead to damage to eye tissue, resulting in complications such as opacity of the lens (cataract), increased intraocular pressure (glaucoma), and retinal detachment. These complications can cause a decrease in visual acuity and, in more serious cases, even complete loss of vision. Furthermore, uveitis can affect patients' quality of life, impairing their ability to perform daily activities such as reading, driving and working.

The importance of early diagnosis and effective treatment of uveitis is crucial to preventing permanent eye damage and preserving the patient's vision. Regular follow-up with an ophthalmologist is essential to monitor disease progression and adjust therapy as needed. Additionally, early interventions, such as the use of anti-inflammatory medications and corticosteroids, can help control inflammation and reduce the risk of visual complications. Raising awareness about the symptoms of uveitis and the importance of seeking adequate ophthalmological care are essential to ensuring the ocular health of patients with rheumatic diseases.

The therapeutic approach to uveitis associated with rheumatic diseases requires a multidisciplinary team made up of ophthalmologists, rheumatologists and other health professionals. This integrated approach allows for a comprehensive assessment of the condition, considering not only ocular aspects but also underlying systemic factors. Ophthalmologists play a key role in the diagnosis and treatment of uveitis, while rheumatologists are responsible for managing the underlying rheumatic disease and collaborating in the choice of immunomodulatory therapies.

Effective communication between team members is essential to ensure a coordinated and cohesive approach to the management of uveitis associated with rheumatic diseases. This includes sharing clinical information, test results and treatment plans, as well as discussing the most appropriate therapeutic options for each patient. Furthermore, patient education about their condition and the importance of regular follow-up with the multidisciplinary team are essential to ensure adequate adherence to treatment and optimize clinical results. In short, a multidisciplinary approach is essential to ensure a comprehensive assessment and effective management of uveitis associated with rheumatic diseases, aiming to preserve vision and improve the patient's quality of life.

Controlling ocular inflammation is a fundamental aspect in the treatment of uveitis associated with rheumatic diseases, aiming not only to alleviate symptoms but also to prevent permanent eye damage. A variety of therapeutic options are available to control inflammation, including nonsteroidal anti-inflammatory medications (NSAIDs), corticosteroids, and immunosuppressive therapies. NSAIDs, such as ibuprofen and diclofenac, are often used to relieve mild to moderate eye pain and inflammation. However, their use may be associated with gastrointestinal and renal side effects, and they are generally considered as a short-term treatment option.

Corticosteroids are widely used in the treatment of uveitis due to their potent anti-inflammatory properties. They can be administered topically, as eye drops or ointments, for anterior uveitis, or orally, intravenously, or intramuscularly, for more severe or systemic uveitis. However, long-term use of corticosteroids may be associated with systemic side effects, such as increased risk of infections, osteoporosis, and hypertension. Therefore, it is important to closely monitor patients on corticosteroid

therapy and consider strategies to minimize associated risks. In cases of corticosteroid-refractory uveitis or when prolonged use is not desired, immunosuppressive therapies such as methotrexate, azathioprine, and cyclosporine may be considered to control inflammation and reduce the need for corticosteroids. These therapies aim to suppress the overactive immune response that triggers ocular inflammation, helping to prevent recurrences and long-term complications.

Preserving vision is one of the main objectives in the treatment of uveitis associated with rheumatic diseases, as visual loss can have a significant impact on patients' quality of life. To achieve this goal, regular ophthalmological follow-up is essential to monitor the progression of the disease and evaluate the effectiveness of the treatment. Early interventions are essential to avoid permanent eye damage and prevent complications that could compromise vision. Furthermore, therapeutic strategies that aim to effectively control inflammation are essential to preserve the integrity of ocular tissues and minimize the risk of visual sequelae.

It is important to highlight that preserving vision in uveitis associated with rheumatic diseases requires a personalized approach, adapted to the individual needs and characteristics of each patient. This includes consideration of factors such as the severity of ocular inflammation, the presence of ocular complications, and response to treatment. Furthermore, patient education about the importance of treatment adherence and regular follow-up with the ophthalmologist is essential to ensure effective management of the condition and maximize long-term visual results.

Uveitis associated with rheumatic diseases can predispose patients to a series of ocular complications that can compromise vision and quality of life. Among the most common complications are cataract formation, increased intraocular pressure (glaucoma) and retinal detachment. Cataract formation is a frequent complication in patients with chronic or recurrent uveitis, due to chronic inflammation and prolonged use of corticosteroids. Increased intraocular pressure, in turn, can be caused by the accumulation of inflammation and damage to ocular tissues, leading to the development of secondary glaucoma.

Retinal detachment is another serious complication that can occur in cases of untreated or inadequately controlled posterior uveitis. This condition occurs when the

retina separates from the underlying layer, compromising central vision and leading to irreversible visual loss if not treated promptly. Therefore, early identification and effective treatment of ocular complications are essential to prevent permanent visual damage and preserve the quality of life of patients with uveitis associated with rheumatic diseases.

Continuous research in the area of uveitis associated with rheumatic diseases has provided significant advances in understanding the mechanisms underlying the disease and in the development of new therapeutic strategies. Recent studies have investigated the contribution of different immunological pathways in the pathogenesis of uveitis, as well as the role of cytokines and inflammatory molecules in the induction and perpetuation of ocular inflammation. Furthermore, technological advances have allowed the development of new methods for diagnosing and monitoring the disease, such as optical coherence tomography and fluorescence angiography, which offer a more detailed assessment of the ocular anatomy and retinal vasculature.

Advances in pharmacological therapy have also been notable, with the development of new biological agents and targeted therapies that target specific targets in the immune response. These therapies, such as interleukin inhibitors and monoclonal antibodies, have demonstrated efficacy in controlling ocular inflammation and reducing the need for corticosteroids in patients with refractory uveitis. Furthermore, personalized treatment strategies, based on specific genetic characteristics and biomarkers, are being explored to improve the efficacy and minimize side effects of medications. In short, advances in research are contributing to a better understanding of uveitis associated with rheumatic diseases and to the development of more effective and safer therapies for patients.

Education and awareness about uveitis associated with rheumatic diseases plays a key role in promoting early diagnosis, access to appropriate treatment and prevention of ocular complications. Lack of knowledge about the relationship between rheumatic diseases and ocular manifestations can lead to delays in diagnosis and treatment, increasing the risk of irreversible visual damage. Therefore, it is essential to provide clear and accessible information about the symptoms, risk factors and treatment options of uveitis, both for healthcare professionals and patients and their families.

Furthermore, awareness of the importance of regular ophthalmological monitoring and compliance with prescribed treatment is essential to ensure effective management of the disease and minimize the impact on the patient's vision and quality of life. Continuing education programs for healthcare professionals, public awareness campaigns, and educational materials for patients can help increase knowledge about uveitis associated with rheumatic diseases and promote an integrated approach to managing this condition. Ultimately, increased awareness can lead to earlier diagnoses, better clinical outcomes and a significant improvement in the quality of life for patients affected by this complex ophthalmological condition.

Education and awareness about uveitis associated with rheumatic diseases plays a crucial role in promoting early diagnosis, access to appropriate treatment and prevention of visual complications. Many patients and even some healthcare professionals may not be fully aware of the relationship between rheumatic diseases and ocular manifestations, which can result in delays in the diagnosis and treatment of uveitis. Therefore, it is essential to provide clear and accessible information about the symptoms, risk factors and treatment options of uveitis in order to increase awareness and promote an integrated approach to managing this complex ophthalmological condition.

Furthermore, ongoing educational programs for healthcare professionals, public awareness campaigns, and educational materials aimed at patients can play a crucial role in disseminating information about uveitis associated with rheumatic diseases. These initiatives aim not only to increase knowledge about the disease, but also to promote the importance of regular ophthalmological monitoring and compliance with prescribed treatment. By increasing awareness about uveitis and its implications, it is possible to facilitate early diagnosis, improve clinical outcomes and, ultimately, improve the quality of life for patients affected by this complex ophthalmological condition.

CONCLUSION

In the context of uveitis associated with rheumatic diseases, the synthesis of scientific studies points to the complexity of this ophthalmological condition and the need for a multidisciplinary and integrated approach to its management. The studies

highlight the importance of controlling ocular inflammation to prevent irreversible visual damage, highlighting the effectiveness of immunosuppressive and biological therapies in controlling the disease. Furthermore, awareness of the relationship between rheumatic diseases and ocular manifestations, as well as the importance of early diagnosis and adequate treatment, emerge as fundamental aspects in preventing complications and preserving vision.

Preservation of vision and improving patients' quality of life are the main objectives of treating uveitis associated with rheumatic diseases, highlighting the importance of continuous education of patients and healthcare professionals about the condition. Although challenges remain, advances in research and therapy offer hope for more effective and personalized management of uveitis, aiming to not only control ocular inflammation but also treat the underlying rheumatic disease. In short, an integrated, scientific evidence-based, patient-centered approach is essential to optimize clinical outcomes and improve the quality of life of patients affected by this complex ophthalmological condition.

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