

CASE REPORT:

Uveitis Psoriatic in a Child: A New Case Report

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Abstract

Uveitis is characterized by a process of intraocular inflammation resulting from various causes, considering psoriasis and uveitis as immune-mediated diseases. When psoriasis is a systemic, chronic, immunologically based, genetically mediated disease that is highly influenced by the environment. Recently, the relationship between psoriasis and various comorbidities, especially metabolic syndrome, have become extremely serious diseases. 7-year-old girl, with uveitis and plaque of psoriasis and psoriatic arthritis the association of uveitis and psoriasis without joint involvement. It seems that psoriasis without arthropathy is not a risk factor for the development of uveitis. Uveitis tends to develop more frequently in patients with arthropathy or pustular psoriasis than in patients with other forms of psoriasis. Ophthalmological examination should be performed periodically in patients with psoriasis and uveitis. If ophthalmopathy is diagnosed, the patient must receive adequate treatment to prevent vision loss.

Keywords: psoriasis, uveitis, child.

1 | INTRODUCTION

Uveitis is defined as an inflammation of the tissues that make up the uvea (iris, ciliary body and choroid).¹, it can be uni or bilateral, acute or chronic, most often anterior with ocular redness but also posterior with vision disorders, rarely total also called pan uveitis, etiologies are multiple infectious and non-infectious. Psoriasis uveitis is considered a non-infectious condition, with a variable incidence estimated between 7-20 %.^{4,5} We report the case of an 8-year-old girl with psoriasis uveitis.

2 | CASE REPORT:

A 7 years -old girl , with no significant pathological history ,followed in dermatology since the age of 4 years for cutaneous psoriasis progressing by remission flare with a fairly good quality of life, the Skindex below 10, treated with dermo corticosteroid only with improvement.

Supplementary information The online version of this article contains supplementary material, which is available to autho-rized users.

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In November 2018 the patient was hospitalized in the ophthalmology department because she had accused the red eye pain, with photophobia and decreased visual acuity. The ophthalmological examination concluded that she has a bilateral total uveitis, non-granulomatous, non-hypertensive, synechyant, associated with a decrease in visual acuity (5/10). The biological examination including viral and bacterial serologies: Herpes simplex 1-2, cytomegalovirus, toxoplasmosis, syphilis, tuberculosis they were

Negative. And the rheumatoid factor, antinuclear antibodies, HLA B 27 antigen, whose results were normal. The diagnosis of psoriatic uveitis is most likely, and she has received a bolus of intravenous corticosteroids for three consecutive days combined with local ophthalmic eye corticosteroid therapy, then oral corticosteroid at a dose of 1 mg/kg/day, with improvement. In July 2019 she made a new uveitis flare-up, treated again with the same treatment (corticosteroid bolus with local treatment).

During this uveitis flare-up, the patient had inflammatory arthralgia, especially in the knees. Radiological investigation confirmed psoriatic arthritis, then treated with interarticular corticosteroid injection.

On the skin level, the dermatological examination showed scaly erythematous plaques on the legs and arms with a body surface area of less than 2%, without affecting the mucous membranes, nail or scalp. The PASI was less than 1. The dermoscopy had objectified a glomerular vascularisation with regular and homogeneous distribution (figure 1). Then the patient was treated with dermocorticoid only.

At the end of all these data, the diagnosis of systemic psoriasis was made in our patient with cutaneous, articular and eye damage. The ocular damage was the most serious and recurrent. The treatment is discussed between dermatologist, rheumatologist and ophthalmologist who have concluded treated the patient with local corticosteroid therapy, and that the use of biotherapy will take place as 2nd level if new relapse.

After one year of ocular symptomatology, the evolution was marked by the installation of bilateral cataract with synechia (figure 2), with a partial remission of skin and articular damage, affecting the patient's quality of life Skindex was 17.

3 | DISCUSSION:

Psoriasis is a chronic, inflammatory, immune-mediated disorder of the skin. It affects 2 to 5% of the world's population. (1) [1] It should be considered an autoimmune disease with the main diseases affecting the skin and articular. Nevertheless, other rare visceral disorders were described, in particular pulmonary, hepatic, and ocular. The presence of uveitis in the context of psoriasis, has been described for decades and it has been estimated to occur in 7–20% of the psoriasis cases. In a cross-sectional study from Singapore, (2) Chandran et al reported that 2 out of 100 psoriasis patients (2%) suffered from uveitis independently associated with the severity of skin disease. (3, 4) A Taiwanese study which included a large number of patients suffering from psoriasis and psoriatic arthritis (n=137,847), and non-psoriatic controls (n=147,954) concluded that patients with severe psoriasis and psoriatic arthritis had the greatest risk of incident uveitis compared with non-psoriatic controls. (5) [5]

pathophysiology of uveitis psoriatic at first were considered to be of the T helper-1 (Th-1) type of inflammation, but now they are considered prototypes of the two inflammatory reactions Th1/Th17. These cells (Th-17) develop from naive CD4+ cells in the presence of IL-6, in the presence of IL-23. (6) [6] In the absence of IL23, Th-17 still develops, but their role is not pathogenic, on the contrary, it is homeostatic. (5, 6) [6] Th-17 also expresses other cytokines that play an important role in autoimmunity: IL-22, IL-6, IL-17F, IL-21, IFN- γ , (GM-CSF) and (TNF- α). [7] Th-17 is responsible for the inflammation in the early stages of the disease while Th-1 expression is increased during the late stages and the resolution of the disease.

The clinical aspect of psoriatic uveitis was reported usually is bilateral, chronic, and severe. Psoriatic uveitis is the most prominent anterior uveitis with the notion of red eye and dry eyes, rarely posterior or total, with risk of macular edema and retinal vasculitis [8-9-10].

The gold-standard treatment of uveitis, in general, includes topical corticosteroids in the form of eye drops, periocular injections, or even intravitreal



FIGURE 1: scaly erythematous plaques on the arm and trunk c : dermoscopy(x10grossing) globular vascular pattern with homogeneous distribution



FIGURE 2: under the microscope: iris synechia with bilateral cataract

steroid-releasing implants. our patient received local corticosteroid therapy with intravenous bolus with a clear improvement but a cataract as a side effect of the treatment.

Uveitis shares common pathogenic mechanisms with psoriasis, as well as with other immune-mediated diseases. TNF- α antagonists were initially used for the treatment of psoriatic arthritis, then they showed

their efficacy in uveitis, and they obtained official FDA approval [11]. In 2016, adalimumab is the first anti-TNF agent to show efficacy on uveitis[12-13]. Then infliximab, and Golimumab. Unlike etanercept, which it approved for efficacy on psoriasis cutaneous and articular but have not demonstrated efficacy in uveitis.⁹

Secukinumab is an FDA-approved human antibody against IL-17A, for the treatment of plaque psoriasis, psoriatic arthritis, and ankylosing spondylitis.³⁹ It has been tested in three phase III dose-dependent studies for the treatment of uveitis (INSURE, ENDURE, SHIELD)

but failed to demonstrate efficacy. [14] Other studies are necessary to prove these results.

4 | CONCLUSION:

our observation bears the particularity that psoriatic uveitis can affect children and is more associated with psoriatic arthritis than with severe skin psoriasis. our goal is to encourage all dermatologists, rheumatologists and ophthalmologists to systematically carry out an ophthalmological examination in all psoriatic patients even in the absence of symptoms, to end diagnosis and treatment of pierced ocular diseases, and avoid the sequelae that are sometimes severe.

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