SAS Journal of Medicine
Abbreviated Key Title: SAS J Med
ISSN 2454-5112
Journal homepage: https://saspublishers.com

OPEN ACCESS

Rheumatology

Ankylosing Spondylitis with HLA B27 Positive and Uveitis: Report of 2 Cases in Conakry (Guinea)

Dr. Adama Bah[1], Charifah Siddiki[2], Abandazegoue Andjembe Laetitia Cynthia[2], Abdoulaye Barry[1], Harine Abdel Aziz Garba[2], Ramadhane Bouchrane[2], Kaba Condé[1], Aly Badra Kamissoko[1]

[1]Service de Rhumatologie, Hôpital Ignace Deen, Conakry, Guinée
[2]Service de Rhumatologie, Hôpital Aristide Ledantec, Dakar, Sénégal

DOI: 10.36347/sasjm.2022.v08i10.019 | **Received:** 12.09.2022 | **Accepted:** 19.10.2022 | **Published:** 27.10.2022

***Corresponding author:** Dr. Adama Bah
Service de Rhumatologie, Hôpital Ignace Deen, Conakry, Guinée
Email: dradamabah@gmail.com

Abstract **Case Report**

Introduction: Ankylosing spondylitis (AS) is an inflammatory rheumatic disease characterized by predominant axial and peripheral (enthesitis, sacroiliitis) involvement affecting young subjects aged 30 to 40 years, 80 to 98% of cases are associated with HLA-B27. The most common extra-articular manifestation is anterior uveitis initially described in 1973. ***Objective***: to report two cases of AS associated with uveitis in young African subjects. ***Case No. 1*:** A 20-year-old patient residing in Dakar, Guinea, followed up in ophthalmology department for anterior uveitis under dexamethasone eye drops for 2 months without favorable evolution, referred to rheumatology department for inflammatory lower back pain relieved by NSAIDs, bilateral buttock pain tilting and bilateral plantar talalgia, dodging lameness, dorsal kyphosis, lumbar stiffness (Schöber test at 5+4cm; normal at 5cm), positive sacroiliac maneuvers, BASFI: 5.67, BASDAI: 6. On para clinical investigations, HLA-B27 antigen was positive, pelvic scan showed stage 3 sacroiliitis on the left and 2 on the right according to Forestier's classification. The diagnosis of non-radiographic primary axial AS HLA-B27 positive with peripheral involvement was made in accordance with the ASSAS criteria. He received 40mg of pyroxicam per day BD, 15mg of methotrexate per week, 15mg of folic acid per week with favorable evolution, BASFI: 2 BASDAI: 2.34, CRP: 14mg/l. ***Case No. 2*:** A 29-year-old Mauritanian patient, whose father was followed-up for reactive arthritis and his mother for primary axial AS. She consulted for inflammatory lower back pain VAS: 6/10, bilateral buttocks pain, bilateral plantar talalgia associated with redness of the left eye requiring an ophthalmology consult where the diagnosis of mixed uveitis was made. She had lumbar stiffness (hand to floor distance: 11cm), BASDAI: 6 BASFI: 4. Positive HLA-B27 antigen, pelvis CT scan revealed bilateral stage 4 sacroiliitis of Forestier's classification, x-ray of the feet showed exuberant plantar calcaneitis. The diagnosis of HLA-B27 positive non-radiographic primary axial AS associated with mixed uveitis was retained. Treatment was with 75mg of diclofenac every OD, 20mg of omeprazole OD, dexamethosone eye drops for 3 months and the follow-up was favorable marked by VAS: 2/10, BASDAI: 2.76, BASFI: 1, CRP: 10mg /I. ***Conclusion*:** AS and uveitis is not a fortuitous association, the presence of one requires the search for the other.

Keywords: SPA, uveitis, Conakry, Guinea.

INTRODUCTION

Ankylosing spondylitis (AS) is an inflammatory rheumatic condition of the spondyloarthritis group, characterized by predominant axial and peripheral (enthesitis and sacroiliitis) involvement affecting young subjects aged 30 to 40 years [1, 2]. The association with HLA-B27 is found in 80 to 98% of cases [3], the most common extra-articular manifestation is anterior uveitis linked to the HLA B27 antigen. This entity was initially described in 1973 [4]. We report two casas of uveitis, one anterior and the other mixed, revealing AS in young African subjects.

Case N°1

A 20-year-old patient, halpoular, shepherd, residing in Dakar of Guinean nationality was referred to us by the ophthalmology department where he is being followed for anterior uveitis under treatment (dexamethasone eye drops) for about 2 months without favorable evolution. He presented inflammatory low

back pain relieved by taking nonsteroidal anti-inflammatory drugs (NSAIDs), bilateral rocking buttock pain and bilateral plantar talalgia.

Clinical examination found dodging lameness when walking, dorsal kyphosis (Figure 1), lumbar stiffness with Schöber positive at 5+4cm (normal at 5cm), and positive sacroiliac maneuvers, BASDFI: 5.67, BASDAI: 6.

Biological analysis showed inflammatory syndrome (ESR: 17 min in the 1st hour, CRP: 96mg/l), positive HLA-B27 antigen, pelvic scan of the showed sacroiliitis stage 3 on the left and 2 on the right according to Forestier's classification and an exuberant plantar calcaneitis on feet radiographs (Figure 2). On the other hand, infectious, hepatic, renal explorations were normal. The rest of the somatic examination was without particularity.

ASSAS classification criteria at ….. points in this patient allowed us to make with ease the diagnosis of non-radiographic primary axial AS with HLA-B27 positive peripheral involvement. Treatment after pre-therapeutic analysis without particularity was with on 40mg of pyroxicam per day BD, 15mg of methotrexate per week, 15mg of folic acid per week 2 days before or after taking methotrexate with favorable evolution marked by normal walking. BASFI: 2 BASDAI: 2.34 CRP: 14mg/l.

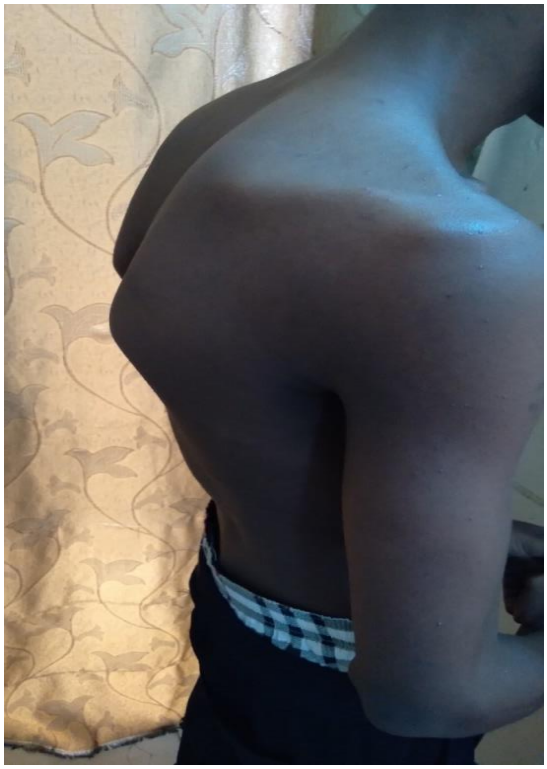

Figure 1: Dorsal kyphosis in a 20-year-old patient with HLA-B27 positive AS in the rheumatology department of the National Ignace Deen Hospital, Conakry, Guinea

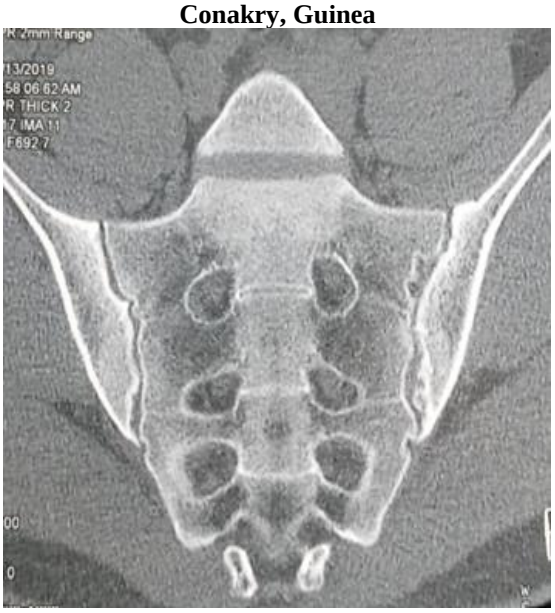

Figure 2: Pelvic CT scan showing stage 3 sacroiliitis on the left and 2 on the right of Forestier's classification with HLA-B27 positive AS in the Rheumatology department of the National Ignace Deen Hospital, Conakry, Guinea

Case Nº 2

A 29-year-old patient, Mauritanian, residing in Nouakchtott, with a family history of spondyloarthritis (her father was being followed for reactive arthritis and her mother primitive axial AS in her mother). She consulted for inflammatory low back pain with VAS: 6/10, bilateral rocking buttock pain, bilateral plantar talalgia associated with redness of the left eye which prompted an ophthalmology opinion where the diagnosis of mixed uveitis was made.

Clinical examination revealed lumbar stiffness (hand-to-ground distance: 11cm), sacroiliac maneuvers were positive, BASDAI: 6 BASFI: 4.

Biological analysis showed inflammatory syndrome (ESR: 46 min at the 1st hour, CRP: 69mg/l), HLA-B27 antigen was positive, pelvic CT scan found bilateral stage 4 sacroiliitis according to the Forestier's classification, x-rays of the feet revealed exuberant plantar calcaneitis (figure 3). The diagnosis of HLA-B27 positive non-radiographic primary axial AS and mixed uveitis of the left eye was made on the basis of clinical and paraclinical signs and in accordance with the 10-point Amor classification criteria.

Treatment was with 75mg of diclofenac OD every evening, 20mg of omeprazole, dexamethosone eye drops for 3 months and follow-up was favorable marked by VAS: 2/10, BASDAI: 2.76, BASFI: 1, CRP: 10mg /I.

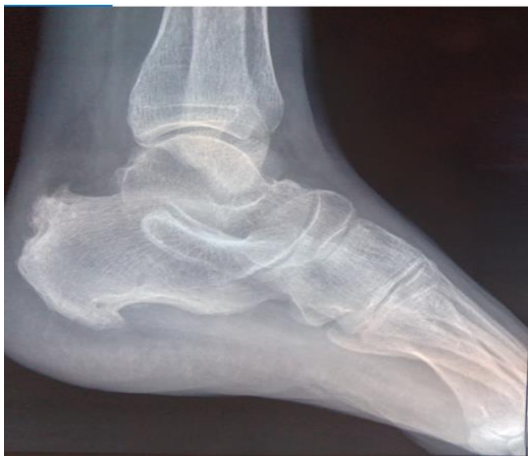

Figure 3: Exuberant plantar calcaneitis in a 20-year-old patient with HLA-B27 positive AS in the rheumatology department of the National Ignace Deen Hospital, Conakry, Guinea

Table I: table showing the prevalence of HLA B27 and anterior uveitis in spondyloarthropathies [12]

Inflammatory Diseases Associated with HLA – B27	Prevalence of HLA-B27 %	Prevalence of Anterior Uveitis %
AS	90	20-30
Reiter's syndrome	40-80	12-37
Psoriasic arthritis	40-50	7-25
Enteropathic arthritis	35-75	2-9
Undifferentiated spondyloarthropathies	70	30,95

DISCUSSION AND COMMENT

Our cases are those of ankylosing spondylitis associated with uveitis, this non-fortuitous association is of epidemiological, diagnostic, prognostic and therapeutic interest.

Ankylosing spondylitis is a chronic rheumatic disease with axial involvement. The association with HLA-B27 is found in 80 to 98% of cases [3], predominant in men aged 30 to 40 years [2]. The frequency of the HLA-B27 allele is highly variable; it is 7-8% in the Caucasian population [5], 1-6% in Asian populations and 50% for North American Indians [4]. HLA B27-related uveitis represents according to populations and studies 40 to 70% of the causes of anterior uveitis [6] with 18 - 32% anterior uveitis in Western countries and 6-13% in Asia [4]. Our patients presented respectively axial joint damage (inflammatory lower back pain and bilateral rocking buttock pain) and peripheral enthesitis (bilateral plantar talalgia) and extra-articular manifestation (red eyes), these damages are consistent with data from the literature according to which anterior acute uveitis can be isolated or associated with spondyloarthropathies. The elementary lesion in these spondyloarthropathies is of inflammatory axial traits and/or peripheral enthesitis (areas of insertion of ligaments and tendons to the bone) [4]. Studies have shown that uveitis has been the revealing element of systemic diseases in 41% to 65% of cases [7, 8].

Ophthalmological involvement in ankylosing spondylitis is essentially represented by anterior uveitis, which is part of an entity called HLA-B27-related uveitis. In fact, uveitis linked to HLA-B27 is often associated with systemic disease, in particular spondyloarthropathy in more than half of the cases (49 to 50%). This iridocyclitis can be the inaugural manifestation of the disease or accompanies inflammatory joint damage [9].

Our two clinical cases had respectively anterior and mixed uveitis, W. Skouri *et al*., in Tunis found 11 cases (84.6%) of anterior uveitis and 2 cases (13.4%) of panuveitis [10].

The diagnosis of AS is based on a range of epidemiological and clinical arguments in accordance with the classification criteria. The most frequent extra-articular involvement, which is uveitis, can be the revealing sign of this pathology. In general, it is anterior uveitis of acute onset associated with redness and photophobia, of a non-granulomatous fibrinous character, with in some hypopyon situation, Posterior segment involvement during uveitis secondary to ankylosing spondylitis remains very rare, its prevalence remains unknown [9], Mapstone and Woodrow and al found only 2 cases with posterior involvement among the 51 patients included in their study [11].

The management of this association was based globally on NSAIDs, DMARDs (methotrexate) and dexamethasone eye drops, our therapeutic regimen is in accordance with the literature which reveals to us that the treatment of the acute crisis involves corticosteroid eye drops (dexamethasone) with a sufficient dose and a

slow regression, associated or not with peribulbar injections and cycloplegics. This treatment resolves the thrust in more than 90% of cases.

The evolution of our patients under treatment was favorable marked by the regression of signs of inflammation, this is in accordance with the literature where acute anterior uveitis usually heals within 1 to 3 months, but uveitis is characterized by a high frequency of recurrences (0.6 to 3.3 relapses/patient/year of follow-up), with a spontaneous decrease in the frequency of relapses with the duration of the condition [4].

CONCLUSION

Ankylosing spondylitis is an inflammatory rheumatic disease of the spondyloarthritis group, characterized by predominantly axial involvement, it is the prerogative of young subjects, no gender predominance, and the most frequent extra-articular manifestation is anterior uveitis related to HLA-B27 antigen. This association is not accidental.

Its early diagnosis improves the functional and vital prognosis. Corticosteroid eye drops and NSAIDs are the reference treatment.

There is a need to systematize the search for HLA-B27 in anterior uveitis in young subjects.

Anterior uveitis in an HLA-B27 context justifies the search for a spondyloarthropathy and in the slightest doubt a consultation in rheumatology is essential.

Sincere Thanks To all those who participated in the care of the patients in one way or another with a special mention to all the staff of the rheumatology department of the Ignace Deenc hospital in Conakry.

Declaration of Conflicts of Interest: No conflicts of Interest.

REFFERENCES

1. Harper, B. E., & Reveille, J. D. (2009). Spondyloarthritis: clinical suspicion, diagnosis, and sports. *Current sports medicine reports*, *8*(1), 29-34.
2. Braun, J., Bollow, M., Remlinger, G., Eggens, U., Rudwaleit, M., Distler, A., & Sieper, J. (1998). Prevalence of spondylarthropathies in HLA-B27 positive and negative blood donors. *Arthritis & Rheumatism: Official Journal of the American College of Rheumatology*, *41*(1), 58-67.
3. Reveille, J. D., Ball, E. J., & Khan, M. A. (2001). HLA-B27 and genetic predisposing factors in spondyloarthropathies. *Current opinion in rheumatology*, *13*(4), 265-272.
4. Chang, J. H., McCluskey, P. J., & Wakefield, D. (2005). Acute anterior uveitis and HLA-B27. *Survey of ophthalmology*, *50*(4), 364-388.
5. Oeil et génétique. Rapport de la société française d'ophtalmologie.
6. Monnet, D. (2003). Uvéites liées à l'HLA B 27+: du fondamental à la clinique. Réalités ophtalmologiques - N°105, 19-22.
7. Monnet, D., Breban, M., Hudry, C., Dougados, M., & Brézin, A. P. (2004). Ophthalmic findings and frequency of extraocular manifestations in patients with HLA-B27 uveitis: a study of 175 cases. *Ophthalmology*, *111*(4), 802-809.
8. Pato, E., Bañares, A., Jover, J. A., Fernández-Gutiérrez, B., Godoy, F., Morado, C. O. N. C. E. P. C. I. Ó. N., ... & Hernández-García, C. É. S. A. R. (2000). Undiagnosed spondyloarthropathy in patients presenting with anterior uveitis. *The Journal of rheumatology*, *27*(9), 2198-2202.
9. Rodriguez, A., Akova, Y. A., Pedroza-Seres, M., & Foster, C. S. (1994). Posterior segment ocular manifestations in patients with HLA-B27—associated uveitis. *Ophthalmology*, *101*(7), 1267-1274.
10. Skouri, W., Boussetta, N., Metoui, L., Arfaoui, B., Ajili, F., & Louzir, B. (2018). Particularités des uvéites associées aux spondylarthropathies. *La Revue de Médecine Interne*, *39*, A220-A221.
11. Mapstone, R., & Woodrow, J. C. (1975). HL-A 27 and acute anterior uveitis. *British Journal of Ophthalmology*, *59*(5), 270-275.
12. Sellami, D., Amor, H., Khemekhen, R., Kammoun, B., Kharrat, W., Zina, Z., & Feki, J. (2006). uvéite antérieure et HLA B27. *Service d'Ophtalmologie CHU Habib Bourguiba SFAX, médecine du Magreb JUIN*, (11/12).