Journal of Biosciences and Medicines, 2023, 11, 135-139
https://www.scirp.org/journal/jbm
ISSN Online: 2327-509X
ISSN Print: 2327-5081

Atypical Manifestations of Systemic Lupus Erythematosus (SLE) in Elderly Men

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How to cite this paper: Vithanage, N., Haq, I.U., Karunanathan, N., Quigley, C., Buckley, A. and Khan, J.H. (2023) Atypical Manifestations of Systemic Lupus Erythematosus (SLE) in Elderly Men. *Journal of Biosciences and Medicines*, **11**, 135-139.
https://doi.org/10.4236/jbm.2023.116010

Received: April 17, 2023
Accepted: June 18, 2023
Published: June 21, 2023

Abstract

This case report highlights the rare occurrence of SLE in an elderly male patient. Despite the unusual presentation, the team was able to make a diagnosis of SLE using a combination of an atypical clinical picture, with initial signs and symptoms of weight loss, anemia, leucopenia and arthlagia, in combination with investigation results, including a positive test for anti-dsDNA antibodies. A more indolent disease course, combined with non-specific initial manifestations and low prevalence within the elderly population, often leads to delayed diagnosis. This case underscores the importance of considering SLE in the differential diagnosis of elderly patients, even in those who do not fit the typical epidemiological profile.

Keywords

SLE, ANA, Anti-dsDNA Antibodies, C3

1. Introduction

Systemic Lupus Erythematosus is a chronic autoimmune disease that affects multiple body systems and can have periods of flare ups and remission. There is higher prevalence of SLE in women of childbearing age, with nine times more women affected than men [1]. Onset of disease above the age 65 is unusual. A retroactive study in Tunisia by Achour *et al.* shows that frequency of SLE in elderly was 5.3% with a female to male sex ratio of 5 [2].

SLE is an autoimmune disease with multi-system involvement and substantial morbidity. Its etiology involves a combination of genetic, epigenetic and environmental factors such as socioeconomic status [3]. There is growing evidence for the implication of environmental factors such as nutrition, lifestyle, and UV exposure in orchestrating epigenetic changes that contribute to the onset

of SLE.

The variable presentation of SLE, ranging from mild symptoms to severe and life-threatening conditions, makes initial diagnosis challenging. The 2019 EULAR/ACR classification criteria for SLE set out to enhance the accuracy of diagnostic criteria by increasing both the sensitivity and specificity. For the diagnosis of SLE, the criteria require a positive ANA test as an obligatory entry criterion and the score greater than or equal to 10 from other clinical categories weighted from 2 to 10. These criteria yielded a sensitivity of 98% and specificity of 96% for the deviation cohort and 96% and 93% respectively for the validation cohort [4].

2. Case Report

The 79-year-old patient M.B was admitted to Wexford General Hospital with weight loss, arthralgia, rash, bicytopenia (anemia and leukopenia) and feelings of general malaise.

He has a past medical history of prostate carcinoma in 2018, mitral valve replacement and hypothyroidism. He was initially referred to the surgical team for weight loss of 17 kg over 4 months and anemia. His history of prostate carcinoma puts him at risk for recurrence. He had already received a CT abdomen and pelvis in Beacons hospital for the weight loss, which didn't validate any suspicion of malignancy. To ensure there was no recurrence, the surgical team booked for urgent outpatient scopes and referred him to our medical team to be investigated for the debilitating arthralgia, which he couldn't tolerate morphine-based treatment for.

On examination he had joint stiffness, primarily in the small joints of his hands, and no signs of active arthritis in any of his small or large joints. He also had a discoid looking scaly rash on both sides of his neck and his back. On auscultation, his chest was clear and he had both heart sounds present with a soft systolic murmur in the apical area. His abdomen was soft and non-tender to the touch.

Initial investigations showed a clear CXR and an ECG with normal sinus rhythm. His initial bloods showed bicytopenia, leukopenia and anemia, and hyponatremia. The team continued investigations to rule out an underlying malignancy. He had an OGD, which showed a hiatal hernia and polyps on the gastric body. His colonoscopy showed diverticulosis and proctitis. A CT TAP was also organized to have a better look into any possible malignancies, but instead revealed bilateral inflammatory changes in his lungs with mild plural effusions. He was treated with antibiotics and we ordered physical and biochemical markers looking into any vasculitis changes. The absence of obvious malignancy and the presence of inflammatory changes in many organ systems drove us to suspect that the underlying disease may be a systemic autoimmune condition.

The labs came back positive for anti-dsDNA antibodies, antinuclear antibodies (ANA) and he had low levels of C3 complement. In accordance with the 2019

EULAR/ACR classification criteria for SLE, the patient was diagnosed with SLE, having a score greater than 10 and the fulfilled entry criterion of a positive ANA test.

After discussion with the Rheumatology Consultant, Dr. Claire Sheehy, at Waterford Regional Hospital, the patient was commenced on prednisolone 20 mg OD and hydroxychloroquine 200 mg OD. Over the next 24 hours there was clinical improvement with reductions in pain and the patient was discharged. He will continue to take the hydroxychloroquine (200 mg) and prednisolone for one month (20 mg) with a slow taper, of 5 mg/week, to stop. Our team will see him in two months, and he will be seen in the interim by Dr. Claire Sheehy as an outpatient at the Rheumatology Clinic.

3. Discussion

The diagnosis and treatment of SLE poses a challenge for physicians due its diverse multisystemic symptoms. It is a disease that more commonly affects women of childbearing age, and is relatively rare in the elderly population. Age of disease onset is associated with ethnicity. Late-onset SLE is more prevalent among Caucasian populations compared to Asians, African Americans and Latin Americans [5].

The patient in this case presented with weight loss of 17 kg over 4 months, arthralgia, oral ulcerations, and a discoid rash. Just based on his symptoms, he scores 12 according to the 2019 EULAR/ACR classification criteria (**Figure 1**). To reach a diagnosis all he needed was a positive ANA test, fulfilling the entry criterion [4].

The patient and his family were most worried about his significant weight loss, which is an atypical manifestation of SLE and not part of the diagnosis criteria in the EULAR/ACR guidelines. A retroactive study by Metry *et al.* from Oman shows weight changes in the initial presentation of 13.43% of patients diagnosed with SLE [6]. Due to the patient's previous history with prostate carcinoma, a recurrence seemed to be a possible cause for the weight loss and needed to be ruled out.

The most frequent clinical signs of SLE in the elderly were anemia (83.3%), arthralgia (55.5%), arthritis (38.9%), and malar rash (33.3%) [2]. Fever was the least common symptoms of late-onset SLE and weight loss and lymphadenopathy were most common [7]. Furthermore, compared to early-onset SLE, the late-onset group demonstrated the lower prevalence of mucocutaneous manifestations, including malar rash, photosensitivity, and cutaneous vasculitis [7]. The late-presenting patients also less frequent involvement of specific organ systems, like the kidneys [5] [7].

Overall, SLE disease severity decreases with age. Patients in the late-onset group had lower SLE disease activity index values (SLEDAI) compared to the early-onset group and consequently had less frequent usage of corticosteroids and immunosuppressive drugs to induce remission [5].

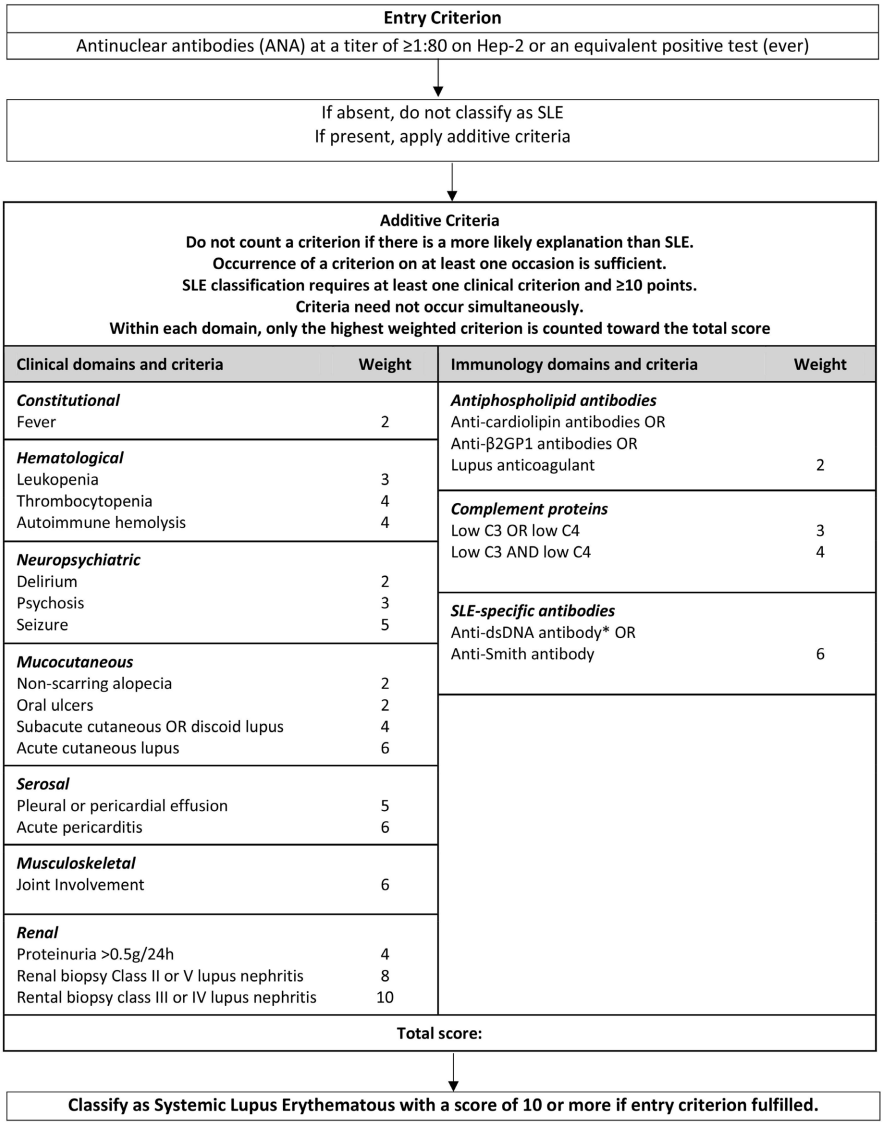

Figure 1. Anti-double stranded DNA (anti-dsDNA) tests.

4. Conclusions

Elderly patients with late-onset SLE show the lowest prevalence of major organ involvement and the highest prevalence of comorbidities, and have more favourable disease activity and damage indices [8].

It is still important to recognize that elderly individuals with SLE may present with distinct clinical and biological manifestations compared to the classic form. To ensure accurate and timely diagnosis, extra care must be taken when evaluating this subgroup of SLE patients.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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