Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

Medicine

HIV-Infected Patients Aged above 75 years: About 2 Cases

A. Gougas[1*], M. Maamar[1], H. Khibri[1], H. Harmouche[1], W. Ammouri[1], Z. Tazi-Mezalek[1], M. Adnaoui[1]

[1]Department of Internal Medicine and Geriatrics, Ibn Sina Hospital, Rabat, Morocco, Faculty of Medicine, Rabat, Morocco

DOI: 10.36347/sjmcr.2024.v12i07.031 | **Received:** 14.06.2024 | **Accepted:** 23.07.2024 | **Published:** 29.07.2024

***Corresponding author:** A. Gougas
Department of Internal Medicine and Geriatrics, Ibn Sina Hospital, Rabat, Morocco, Faculty of Medicine, Rabat, Morocco

Abstract **Case Report**

The aging of HIV-infected individuals raises many pathophysiological, clinical, therapeutic, and management questions as the frequency of comorbidities and polypharmacy, as well as the potential increased frailty. These are factors that are yet to be assessed in Geriatric HIV population. Little data is available on very older adults infected with HIV. We report two clinical cases of HIV-infected patients newly diagnosed at 75 years and above.

Keywords: HIV infection, older adults, Aging, AIDS.

INTRODUCTION

Human Immunodeficiency Virus (HIV) has historically been viewed as a disease affecting younger populations, particularly those in their reproductive years. However, with advancements in medical care and antiretroviral therapy (ART), people living with HIV are now experiencing longer lifespans, leading to a growing number of elderly individuals diagnosed with HIV. This demographic shift presents unique challenges and considerations in the management and care of HIV in older adults.

Older patients specifically above 75 years old, are often perceived to have lower risk for acquiring HIV. They are often not included in the target population for larger scale routine HIV testing programs, because of few studies about this age category, leading to a late diagnosis. A diagnosis of HIV at a later stage is associated with increased morbidity and mortality, increased healthcare costs, and decreased virologic and immunologic response to antiretroviral therapy.

We are going to describe the case presentations of 2 patients previously hospitalized at the Internal medicine and Geriatric department which acquireed HIV infection above the age of 75 years old.

CASE PRESENTATION 1

Mrs F, 76-year-old, widowed for 15 years, independent for AVD and IAVL, with a history of recurrent intercostal shingles of the left upper limb treated 1 year ago, vaccinated against COVID 19 (AstraZeneca), was hospitalized for a Subacute polyradiculoneuritis in the past 3 weeks. The diagnosis was based on motor deficiency on lower limbs distally hampering walking associated with an accentuation of paresthesias of the 2 upper limbs, as well as sensory disorders such as numbness and tingling in the two lower limbs, without associated respiratory or swallowing disorders, all evolving in an unencrypted weight loss context. Furthermore, the patient reported no signs of infection, in particular no fever or diarrhea.

The Comprehensive geriatric assessment showed a slight alteration in cognitive functions (MMSE: 20/30, clock test: 5/7), no depressive syndrome (Mini-GDS: 0/4). In addition, the patient had a severe undernourishment (BMI 17 kg/m^2), as well as a partial loss of functional independence (ADL score: 4/6; IADL: 3/8).

The electroneuromyography test was performed revealing demyelinating sensory-motor polyradiculoneuritis predominating in the lower limbs, however the study of cerebrospinal fluid was normal. The diagnosis of post-vaccination subacute inflammatory polyradiculoneuritis was made, the patient received a first cure of IV human immunoglobulins.

As part of the etiological assessment, hepatitis serologies HVB, HVC, also anti-nuclear antibodies were all negative. However, the HIV serology test CLIA was positive, in favor of HIV1 infection. The viral load was at 485,540 elm/mm^3 and a CD4+ T lymphocyte rate decreased to 185 elm/mm^3, making it possible to classify HIV at an AIDS stage (C3). Furthermore, no

opportunistic infections were reported neither in blood or in cerebrospinal fluid.

Therapeutically, a bolus of methylprednisolone (15mg/kg/d) IV was administered for 3 days with oral relay of prednisone; a second cure with IV human immunoglobulins was scheduled after an interval of 4 weeks, a triple antiretroviral therapy combining Dolutegravir-Tenofovir-Lamivudine, was finally delivered, as well as a prophylactic antibiotic treatment and pregabalin.

CASE PRESENTATION 2

Mr C, 77 years old, a retired policeman, living alone, with a positive sexual history. He was admitted to the hospital for a weight loss history (total weight loss of 15 kg in 6-month), and for asthenia. He reported no fever, arthralgias, cough, abdominal pain, or diarrhoea.

On physical examination, he appeared well. His temperature was 36.6°C, the lungs auscultation revealed bilateral ronchi. The abdomen was soft, with no organomegaly. There was no lymphadenopathy.

The comprehensive geriatric assessment, detected a slight functional dependence IADL: 5/8, a severe undernourishment (BMI 14 kg/m^2), no depressive syndrome or cognitive decline.

Biology revealed, an aregenerative normochromic normocytic anemia (hb: 9g/dl), The white-cell count was normal, with no lymphopenia. Also a biological inflammatory syndrome CRP at 100. CT of the chest, abdomen, and pelvis was performed without the use of contrast material and showed no masses, lymphadenopathy, or organomegaly.

Infectious analysis showed a positive HIV serology CLIA test, The viral load was at 2390818 elm/mm^3 and a CD4+ T lymphocyte rate decreased to elm/mm^3, making it possible to classify HIV at an AIDS stage (C3). Furthermore, syphilizes serology was also positive (TPHA +), although the search of syphilizes in cerebrospinal liquid was negative, tuberculosis analysis were also negative. The patient took benzyl penicillin (2 doses), and antiretroviral therapy (Dolutegravir-Lamivudine-Tenofovir) with a good evolution.

Although, to explore the etiology of his anemia, serum protein electrophoresis detected a monoclonal protein defined as immunoglobulin-G kappa with a concentration of 25 g/L. In addition, 22% abnormal plasma cells were detected in the bone marrow. But no evidence of hypercalcemia, lytic bone lesions, or renal failure. Mr. C was diagnosed with Smoldering multiple myeloma. Given the features of his hemopathy, he was recommended to have trimestral follow-up appointments to monitor his blood work. No chemotherapy was administered. After several months, his monoclonal-protein level regressed and he did not have any other biological abnormalities or clinical symptoms.

DISCUSSION

Over the past years, several studies assessed HIV-infected individuals aged above 50 years in terms of morbidity, fatality, and iatrogenic events. The 50-year threshold was selected based on epidemiological criteria (age pyramid of HIV-infected people) and not on clinical criteria. Yet, the geriatric population of developed countries usually refers to people aged above 75 years.

The increasing age of people living with HIV (PLWH) is the net result of increased survival due to effective new generation antiretroviral therapy (ART), associated with better quality of life and with a significantly reduced morbidity and fatality in treated patients.

However, the group of patients having an HIV contamination at an older age, is a minority, less well known, because of few studies about this age category. According to the Committee of the regional coordination of the fight against sexually transmitted infections HIV (COREVIH), 1.6% of patients in France were aged 75 years or above in 2020 [1].

Both of patients described above acquired HIV at an advanced stage. The definition of late diagnosis of HIV varies across the literature, but it generally describes people with HIV (PWH) who meet the acquired immunodeficiency syndrome (AIDS) case definition within 12 months of their initial HIV diagnosis [2]. A diagnosis of HIV at a later stage is associated with increased morbidity and mortality [3, 4], risk of further HIV transmission [3, 5], increased healthcare costs, and decreased virologic and immunologic response to antiretroviral therapy.

Some studies have found that older patients are often perceived to have lower risk for acquiring HIV, as health professionals request HIV serology only at ""risked"" situations, like widowed elderly, drug users and who report many partners; failing to request the serology for the elderly with stable [6]. Furthermore, older patients specifically above 75 years old, are also often not included in the target population for larger scale routine HIV testing programs [2, 7].

In the same context, the clinical presentation of HIV in very older adults is usually atypical such as weight loss, anorexia, or other clinical symptom suggesting of HIV complication such as the first case.

Non-communicable diseases (NCDs), Multimorbidity (MM) and polypharmacy (PP) constitutes a burden in geriatric HIV positive patients.

In the GEPPO cohort; a cross-sectional comparison stratified by age groups, namely: youngest old (65-75) and older old (≥75 years). NCDs, MM and PP prevalence increased with age categories. The "older old" group for diabetes mellitus, Dyslipidaemia, and chronic kidney disease. Independent predictors for MM were age > 75 years, higher BMI, male gender and HIV duration above 20 years, all $p < 0.01$ [8].

Both of the patients described above are exposed to polypharmacy, due to HIV complications. They are both treated with the Regimen TAF/FTC+ DTG, according to EACS European AIDS Clinical Society 2022 guidelines [9], a single-tablet triple therapy, aiming to increase tolerance and therapeutic compliance.

Screening for vulnerability in HIV-infected patients aged above 75 years, using a simplified standardized geriatric evaluation is very crucial. The standardized geriatric evaluation assesses the frailty status of patients to prevent the risks of morbidity and mortality [10].

We report that both of the cases suffer from undernourishment, which is very common in geriatric population, especially HIV-infected patients [11].

One of the first studies to specifically assess geriatric HIV-infected patients, aged 75 years and above; is a study conducted in six hospitals of the Pays de la Loire region, France. Aiming to assess their vulnerability to comprehend the complexity of the aging process. Overall, 21.6% of the patients were at risk of frailty and 3.9% were frail patients. Frailty was significantly higher among women. This finding is concordant with data from the general population [12].

We should highlight that the first patient described above (a woman), is Frail (FRIED criteria 5/5).

Female sex, HIV infection without antiretroviral treatment, reduced CD4 cell count, depression and cardiovascular disease are some of the risk factors for frailty among PLWH. Frailty predisposes to falls and can therefore lead to more frequent fractures, hospitalization and death, especially in women with osteoporosis [12, 13].

HIV-infected individuals aged above 75 years are almost perfectly managed [12, 14]. Structuring management with dedicated geriatric/HIV consultations could help revaluate prescriptions and lead to implementing a multidimensional approach based on varied and standardized scales to assess the complexity of geriatric HIV-infected people's health.

CONCLUSION

In the relatively new context of global aging, Human Immunodeficiency Virus (HIV) infection is less an exception than a paradigm. HIV infection is therefore now considered a chronic disease, with a life expectancy close to that of the general population. To improve the care of this age category, specific geriatric characteristics should be assessed with the joint follow-up between infectiologist and geriatrician.

REFERENCES

1. COREVIH Occitanie. L'épidémiologie en Occitanie [en ligne]. In COREVIH Occitanie. CHU de Montpellier/ www.corevih.chumontpellier.fr/fr/epidemiologie-recherches- cliniques/lepidemiologie-en-occitanie.
2. Yasin, F., Rizk, C., Taylor, B., & Barakat, L. A. (2020). Substantial gap in primary care: older adults with HIV presenting late to care. *BMC geriatrics*, *20*, 1-5.
3. Smith, R. D., Delpech, V. C., Brown, A. E., & Rice, B. D. (2010). HIV transmission and high rates of late diagnoses among adults aged 50 years and over. *Aids*, *24*(13), 2109-2115.
4. Goulet, J. L., Fultz, S. L., Rimland, D., Butt, A., Gibert, C., Rodriguez-Barradas, M., ... & Justice, A. C. (2007). Do patterns of comorbidity vary by HIV status, age, and HIV severity?. *Clinical infectious diseases*, *45*(12), 1593-1601.
5. Hall, H. I., Holtgrave, D. R., Tang, T., & Rhodes, P. (2013). HIV transmission in the United States: considerations of viral load, risk behavior, and health disparities. *AIDS and Behavior*, *17*, 1632-1636.
6. Alencar, R. A., & Ciosak, S. I. (2016). Aids in the elderly: reasons that lead to late diagnosis. *Revista brasileira de enfermagem*, *69*, 1140-1146.
7. Girardi, E., Sabin, C. A., & Monforte, A. D. A. (2007). Late diagnosis of HIV infection: epidemiological features, consequences and strategies to encourage earlier testing. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, *46*, S3-S8.
8. Guaraldi, G., Malagoli, A., Calcagno, A., Mussi, C., Celesia, B. M., Carli, F., ... & Di Perri, G. (2018). The increasing burden and complexity of multi-morbidity and polypharmacy in geriatric HIV patients: a cross sectional study of people aged 65–74 years and more than 75 years. *BMC geriatrics*, *18*, 1-10.
9. https://www.eacsociety.org/guidelines/eacs-guidelines/ new GuidelinesV11.1 2022
10. Fried, L. P., Tangen, C. M., Walston, J., Newman, A. B., Hirsch, C., Gottdiener, J., ... & McBurnie, M. A. (2001). Frailty in older adults: evidence for a phenotype. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *56*(3), M146-M157.

11. Stratégie de prise en charge en cas de dénutrition protéino-énergétique chez la personne âgée. Recommandations professionnelles. (2021) Haute Autorité de santé; https://www.has-sante.fr/upload/docs/application/pdf/denutrition_personne_agee_2021_recommandations.pdf
12. Bernaud, C., Sécher, S., Michau, C., Perre, P., Fialaire, P., Vatan, R., ... & Hitoto, H. (2020). HIV-infected patients aged above 75 years. *Medecine et maladies infectieuses*, *50*(1), 43-48.
13. Krankowska, D. C., Załęski, A., & Wiercińska-Drapało, A. (2022). Frailty and prefrailty in people living with HIV, with focus on women living with HIV. *International journal of STD & AIDS*, *33*(13), 1106-1110.
14. https://geriatries.fr/epidemiologie-des-personnes-vivant-avec-le-vih-de-75-ans-et-plus-en-occitanie-ouest/repéres en gériatrie/septembre 2022