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Diffuse Lymphocytic Infiltration Syndrome (DILS) as a Mode of Revelation of HIV: On a Case

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Abstract **Original Research Article**

Diffuse Lymphocyte Infiltration Syndrome (DILS) is a rare condition observed in HIV patients, characterized by infiltration of CD8+ T lymphocytes in several organs. In this article, a case of revelation of HIV infection is presented, diagnosed following bilateral parotidomegaly associated with DILS. The patient, aged 60, presented a progressive deterioration in general condition, significant asthenia, weight loss, and local symptoms including bilateral parotid swelling, cervical lymphadenopathy, and intermittent fever. Investigations revealed HIV-1 seropositivity, lymphocytosis with high T-CD8+ levels, salivary gland enlargement on imaging, and benign lymphoepithelial lesions on parotid biopsy. The diagnostic criteria for DILS were met, highlighting the importance of salivary gland involvement in this syndrome. Treatment with HAART resulted in significant regression of symptoms. In summary, DILS represents a multisystem complication of HIV, requiring appropriate management including antiretroviral treatment to improve patient prognosis.

Keywords: infiltration – HIV – parotid – CD8+ T lymphocyte.

INTRODUCTION

Diffuse lymphocytic infiltration syndrome (DILS) is a rare multisystem disorder seen in patients with HIV. This pathology is characterized by lymphocytosis with CD8+ T lymphocytes which infiltrate several organs.

MATERIALS AND METHODS

We present here a case of HIV retrovirosis diagnosed during bilateral parotidomegaly associated with DILS. Treated at the center of virology and infectious diseases at the Mohamed V military hospital in RABAT.

RESULTS

Mrs. A.M., aged 60, was admitted for the treatment of HIV retrovirosis. The symptoms began a year ago with a progressive deterioration in general condition, marked by significant asthenia and a weight loss of 50 kg. Over the past three months, she developed bilateral parotid swelling with dry mouth syndrome, cervical lymphadenopathy, and intermittent fever. Previously hospitalized in internal medicine looking for a systemic disease, on admission she was conscious, well oriented, afebrile and hemodynamically stable. Physical examination revealed bilateral parotid swelling, painless and soft, accompanied by cervical and supraclavicular lymphadenopathy.

The paraclinical assessment included:

- Positive HIV 1 serology.
- T-CD4+ rate: 204; T-CD8+ rate: 2449.
- Cervical ultrasound: bilateral hypertrophy of the salivary glands.
- TAP CT: cervical, axillary and abdominal polyadenopathy.
- MRI: homogeneous hypertrophy of the parotid, submandibular and lacrimal glands.
- Parotid biopsy: benign lymphoepithelial lesions of the parotid.

Figure 1:Régions parotidiennes de notre patiente avant et après traitement

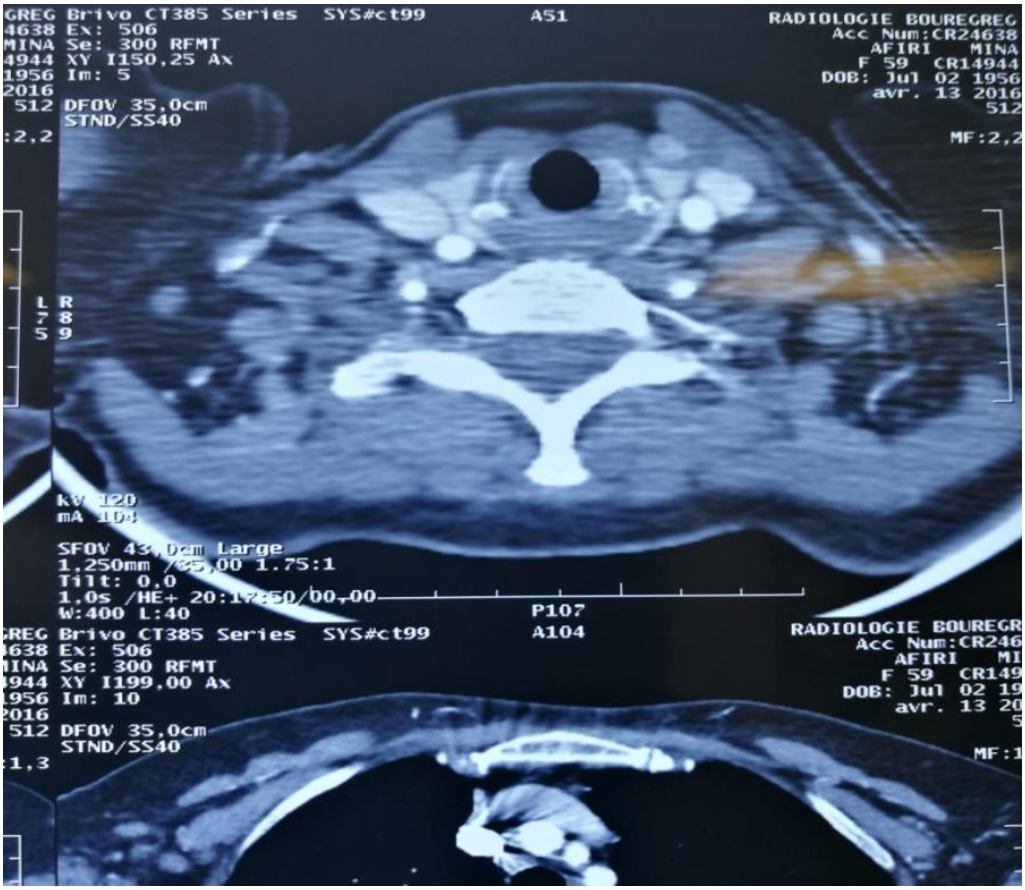

Figure 2: Coupe basse de la TDM cervicale de notre patiente

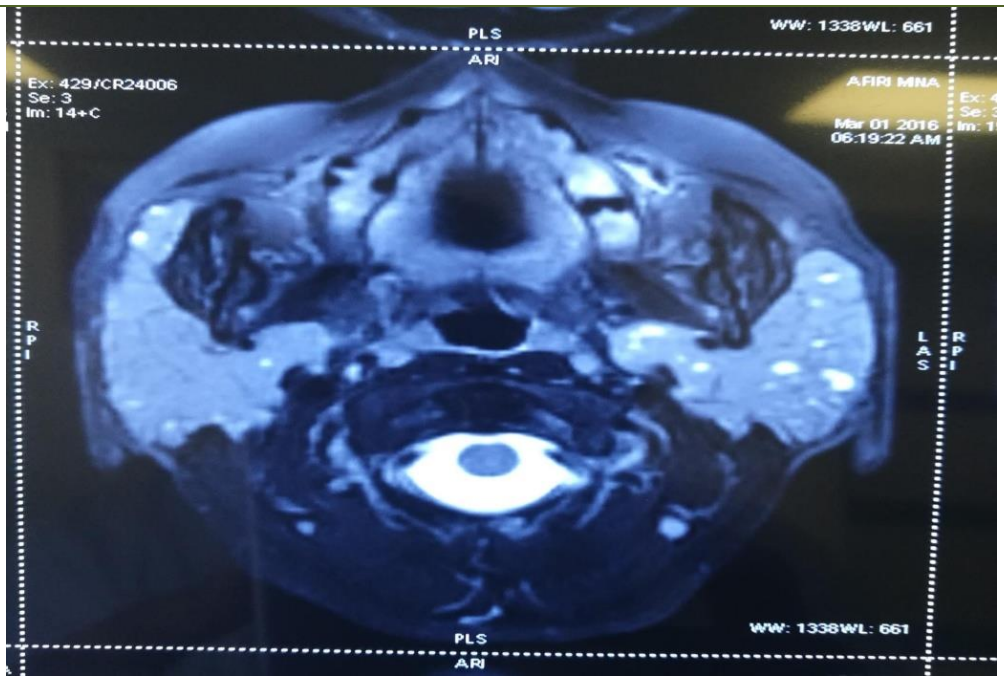

Figure 3: IRM des régions parotidiennes de notre patiente

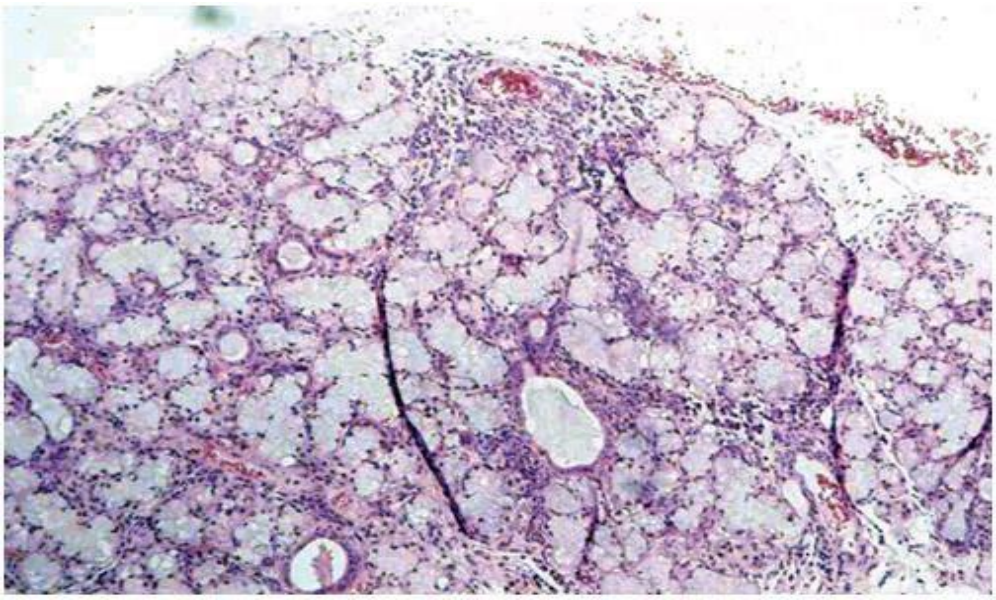

Figure 4: Spécimen de Biopsie des Glandes Salivaires Accessoires d'un patient atteint du DILS [5]

DISCUSSION

DILS is usually seen in patients who are untreated or poorly controlled by antiretroviral therapy. A thorough knowledge of the associated symptoms is crucial to discuss HIV infection when it is unknown.

HIV infection is initially characterized by an expansion of T-CD8+ cells in the peripheral blood. Although this phenomenon is usually ephemeral and followed by a decrease in CD8+ in parallel with that of CD4+, the high level of T-CD8+ can persist, leading to the tissue infiltration characteristic of DILS.

These lymphocytes have a phenotype similar to that of circulating T-CD8+ cells, histologically surrounded by HIV-infected monocytes and macrophages. Hypotheses have been put forward suggesting that infected monocytes secrete significant amounts of cytokines, such as TNFα, leading to the recruitment of CD8+ T lymphocytes through endothelial cells.

Several studies [2-4] have shown that the most common clinical manifestations of DILS are salivary gland hypertrophy (76%) and sicca syndrome (77 to 83%). Lymphadenopathy is found in almost half of cases (48%).

Diagnostic criteria for DILS (according to Itescu *et al*., [1]):

1. HIV infection
2. Bilateral parotidomegaly or xerostomia
3. Persistence of symptoms ≥ 6 months
4. Histological confirmation of lymphocytic infiltration of the salivary or lacrimal glands, without granulomatosis or neoplasia. The diagnosis requires the presence of all 4 items.

These criteria underline the importance of salivary gland involvement in this syndrome. However, DILS is a multisystem syndrome that can affect multiple organs such as the lungs, central nervous system, kidneys, and liver.

Treatment is highly active antiretroviral therapy (HAART), leading to significant regression of signs and symptoms. If there is no response to HAART, corticosteroids may be necessary.

In the case of our patient, DILS manifested itself as bilateral parotitis with sicca syndrome and polyadenopathy. With the exception of the duration of persistence of symptoms at discovery, the diagnostic criteria were met. The patient was treated with HAART, leading to the disappearance of parotidomegaly within one month.

CONCLUSION

DILS represents a multisystem complication of HIV infection, characterized by CD8+ lymphocytosis and infiltration of various organs, presenting a syndrome similar to that of Sjögren. However, due to its rarity and the lack of clearly defined classification criteria, DILS often remains underdiagnosed.

SOURCES

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