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BDCA2 BLOOD DENDRITIC CELL ANTIGEN II ANTIBODIES LITIFILIMAB IN THE TREATMENT OF SYSTEMIC LUPUS ERYTHEMATOSUS-SLE

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Abstract: Objective to evaluate the favorable and unfavorable results in the use of the antigen II antibody of blood dendritic cells BDCA 2, LITIFILIMAB in the treatment of systemic lupus erythematosus-SLE. **Methods:** An integrative review was carried out, using as criteria the search in the National Library of Medicine (PubMed) and Scientific Electronic Library Online (SciELO) databases using the descriptors (i) Systemic lupus erythematosus (ii) Litifilimab, (iii) Monoclonal antibodies, with the Boolean operator "AND". Studies published from 2018 to 2022 were included. **Results:** Currently, there are several therapies for the treatment and control of systemic lupus erythematosus, as well as the test carried out for the anti-B antibody DCA2 or Litifilimab, which is the binding of antigen II of blood dendritic cells that is expressed only in plasmacytoid dendritic cells, where suppresses the production of interferon I, which is largely involved in the pathogenesis of systemic lupus erythematosus, Litifilimab was associated with a greater reduction in the number of affected joints, having this as a therapeutic advantage, but further studies are needed to verify safety and efficacy of the drug.
Keywords: Systemic lupus erythematosus, litifilimab and monoclonal antibodies.

INTRODUCTION

Systemic lupus erythematosus (SLE) is a chronic multisystemic autoimmune inflammatory disease of unknown cause, which has its own clinical and laboratory manifestations, along with a variable course and prognosis, associated with potentially significant morbidity and mortality (NARVÁEZ et al.,2020).

Although the clinical situation of patients with systemic lupus erythematosus has advanced a lot over the years, there are many complaints that still remain without

improvement, which leads to a worsening in the quality of life of these patients (NARVÁEZ et al., 2020).

Being a disease that mainly affects young women, as well as certain ethnic groups such as Asians, blacks and Hispanics, where they are more susceptible to the development of SLE, reports on its correct global incidence and prevalence are flawed, since they are influenced by social factors, demographic and emotional among other risk factors for its development (BARBER, et al., 2021).

The mortality of patients with SLE exceeds the mortality of the general population by two to three times, thus being an incentive for studies in the area, the most common causes being infections and deaths of cardiovascular origin, with limited resources for surveillance of chronic conditions in America of the South, remains with an unknown epidemiology for lupus (FATOYE, et al., 2022).

Despite this limitation of epidemiological research in South America, it is noteworthy that in these areas, patients have SLE at young ages, reaching a peak in women aged 20 to 30 years, but the age of mortality of these women continues to be premature (FATOYE, et al., 2022).

What makes more epidemiological, classificatory and new therapies studies necessary as well as the one proposed by this article, which reports on the antigen two antibodies of blood dendritic cells BDCA 2 in the treatment of systemic lupus erythematosus (FATOYE, et al., 2022).

REVISION

PREVALENCE AND PATHOGENESIS

SLE has a prevalence that varies from 20 to 150 cases per 100,000 inhabitants, affecting mainly women of childbearing age, and may involve any vital organ, in particular, heart, brain, kidneys, skin and blood (KLEIN, et al., 2018).

The pathogenesis of SLE is not completely established and known, however it is known that it involves an imbalance in cellular and humoral immunity, with hyperactivation of memory B cells that produce antibodies resulting in damage to adjacent organs, in addition to contributing to the emergence of certain neoplasms (KLEIN, et al., 2018).

RISK FACTORS

Although its cause is not completely described, it is known that genetic factors are a major risk factor for the development of systemic lupus erythematosus, as well as viral infections, medications, solar radiation and other microorganisms, hormonal factors, which lead to immunological changes, leading to an imbalance in the production of antibodies, which react against self proteins. (AZEVEDO, et al., 2021).

Therefore, the symptoms developed depend on the type of antibody developed, the organ affected and the appearance of each antibody depends on the genetics of each organism. (AZEVEDO, et al., 2021).

SIGNALS AND SYMPTOMS

As it is a multisystemic and multifaceted disease, it presents several signs and symptoms ranging from skin to blood, just as there are forms restricted to the skin, the cutaneous lesions of SLE occur in areas more exposed to solar radiation, leaving the skin erythematous on the face, ears and neck forming a lesion called the V of the neckline (PIRAQUIVE et al., 2018).

Varying symptoms according to whether the disease is in remission or activity, generally occurring with fatigue, weakness, as well as symptoms and signs in specific organs such as the skin, which occurs in 80% of cases, such as erythematous lesions in the region. malar respecting the nasolabial folds, as well as discoid and joint lesions with the

predominant symptom being pain, affecting mainly the joints of the wrist, hand, knees and feet (GERGIANAKI et al., 2018).

There is also inflammation of serous membranes such as the pleura and pericardium, which are relatively common inflammations in this type of patient, where they can be mild, moderate to severe and manifest in different ways, such as dyspnea and chest pain, in addition to the relatively common appearance of nephritis. lupus, which occurs in about 50% of patients, with a silent onset that can progress to severe forms requiring dialysis therapy or kidney transplantation (BAKSHI et al., 2018).

Neuro-psychiatric alterations are uncommon, but some patients present with seizures and psychoses, while hematological alterations are common, affecting all medullary lineages, generating pancytopenia (UGARTE-GIL et al., 2021).

DIAGNOSIS

The diagnosis of systemic lupus erythematosus is made through a laboratory clinical analysis, which among the laboratory tests are urine analysis, blood count, antibodies such as ANA which is more sensitive and is present in a large part of the population and the anti- DNA, which is more specific, as well as other tests that may be requested in order to assess target organ damage and the presence of disease activity or to verify whether the disease is in remission (TAYER-SHIFFMAN et al., 2022).

However, the diagnosis of systemic lupus erythematosus - SLE is still a challenge because it is a multifaceted disease, so there are diagnostic criteria that have been updated in search of a better diagnosis of the disease, without leaving lupus patients without diagnoses, as well as so that they do not false positive diagnoses occur since this causes great distress in patients (ASIF et al., 2022).

It is known that the diagnosis of systemic lupus erythematosus comes with a serious responsibility, both for those who give the diagnosis and for those who receive it, just as any chronic disease requires a series of changes in lifestyle, and emotional and physical preparation, since it depends extremely on how these patients are feeling emotionally (DORNER et al., 2019).

COMPLICATIONS

Systemic lupus erythematosus is a pathology that leaves many sequelae and complications throughout its clinical course, both physical and mental. detect from the smallest changes in order to improve the quality of life of these patients (CARRION-BARBERA et al., 2021).

NEW DRUG THERAPY

Currently, there are several therapies for the treatment and control of systemic lupus erythematosus, as well as the test carried out for the anti-B antibody DCA2 or Litifilimab, which is the binding of antigen II of blood dendritic cells that is expressed only in plasmacytoid dendritic cells, where suppresses the production of interferon I, which is largely involved in the pathogenesis of systemic lupus erythematosus (ARINGER et al., 2020).

In phase II studies involving patients with SLE, Litifilimab was associated with a greater reduction in the number of affected joints, having this as a therapeutic advantage, but further studies are needed to verify the safety and efficacy of the drug. (ASIF et al., 2021).

FINAL CONSIDERATIONS

Therefore, it is concluded that the treatment of lupus requires a multidisciplinary team because it is a chronic disease with a complex pathogenesis, multiple new therapies have been discovered due to the advancement of

science, but there is still much to evolve in the search for a better quality of life of these patients. (XIBILLÉ-FRIEDMANN et al., 2019).

Therapies with monoclonal antibodies are the ones that have been standing out the most and showing the best results, but the basic therapy for the treatment of systemic lupus erythematosus remains the same, respecting the individuality of each patient as well as their physical, social and economic context. (MERRILL et al., 2022).

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