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Giant Lymphoma In Adult

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Abstract: *Abnormal proliferation of large lymphoid cells is referred to as giant lymphoma. Lymphoma is a hematological malignancy originating from the lymphatic system and is classified into Hodgkin's lymphoma (HL) and non-Hodgkin's lymphoma (NHL)[1]. Diffuse Large B-Cell Lymphoma (DLBCL) is an aggressive subtype of NHL, with a global prevalence of 30-40% and an incidence of approximately 5-7 cases per 100,000 population per year in the United States and Europe.A 28-year-old woman presented to the RSI Nashrul Ummah Lamongan Surgery Clinic with complaints of a lump in her right neck for 8 months. During anamnesis, she reported that the lump was painless and immobile. Initially, the lump was the size of a chicken egg, but it had grown larger over the past two months, accompanied by the emergence of a new lump. On physical examination, the patient was in good general condition. A lump measuring 27 x 25 x 6 cm was observed in the right cervical region, with firm boundaries, solid consistency, attachment to the base, and no tenderness, along with enlarged lymph nodes in the right axilla. An incisional biopsy revealed histopathological findings of fragmented tissue weighing 1.3 grams, containing diffuse tumor cells that were large, with scant cytoplasm, round to oval indented nuclei, irregular nuclear membranes, prominent nucleoli, and frequent mitoses. Immunohistochemical analysis showed positive results for CD20, CD45, and Ki-67 (with a proliferation index of 50%), while CD3 and CD30 were negative.Primary DLBCL of the neck (Diffuse Large B-Cell Lymphoma) typically presents as a unilateral, painless cervical mass, with the average patient age being 60 years. In this case, the patient was notably younger (28 years old) and exhibited no systemic symptoms. Histopathological and immunohistochemical analyses were essential to confirm the diagnosis and classification of DLBCL. The prognosis for localized DLBCL in the neck is generally favorable compared to cases with systemic disease, although this case demonstrated a short tumor doubling time.This report underscores the importance of early detection, accurate diagnosis, and appropriate therapeutic management to improve the prognosis of DLBCL patients presenting with extranodal involvement in the neck region.*

Keyword: *Non-Hodgkin's Lymphoma, Diffuse Large B-Cell Lymphoma, Case Report*

INTRODUCTION

Giant lymphoma is a term used to describe large lymphomas that arise as a result of abnormal proliferation of lymphoid cells. Lymphoma is a form of hematological malignancy originating from the lymphatic system, consisting of two main categories, namely Hodgkin's lymphoma (HL) and non-Hodgkin's lymphoma (NHL). Both are obtained from the proliferation of T lymphocyte cells and B lymphocyte cells. Lymphoma appears as painless swelling of the lymph nodes, but can involve extranodal areas, which commonly involve the digestive tract, head and neck. Extranodal involvement is much less common in HL than in NHL. Diffuse Large B-Cell Lymphoma (DLBCL), is the most common and aggressive form of non-Hodgkin's lymphoma. The prevalence of DLBCL is estimated to reach 30-40% of all cases of non-Hodgkin lymphoma in the world, with an incidence of around 5-7 cases per 100,000 population per year in the United States and Europe[4]. DLBCL increases with age, with a peak occurring at age 60-70 years. The incidence of NHL that can be observed from 2.6% in the 20-24 year age group to 43.8% in the 60-64 year age group and 119.7 in 100000 in the 80-84 year age group.

INTRODUCTION CASE REPORT

A 28-year-old woman came to the RSI Nashrul Ummah Lamongan Surgery clinic with symptoms of a lump on her right neck since approximately 8 months ago. The lump was initially the size of a chicken egg, but the patient felt that the lump was getting bigger over time without being accompanied by lumps in other parts. In the last two months the patient said the lump had increased to three times its previous size and a new lump was found around the old lump, one in number, not easily moved and without pain. The patient is a mother households whose daily activities only do housework and the patient began to feel increasingly severe discomfort as the lump grew larger.

The patient denied any previous complaints about other lumps in himself and his parents, and had a history of being infected with viruses such as HIV, Epsteinbar virus, helicobacter Pylori, or autoimmune diseases. The patient said he had never had surgery before but the patient felt his body was getting thinner and the patient's weight was decreasing which was indicated by the clothes worn by the patient every day becoming looser.

On physical examination, the patient's general condition and vital signs were all within normal limits. On examination of the local status in the coli region, a lump was found on the right neck, the examination showed a size of 27x25x6cm with a firm boundary, solid consistency, attached to the base and no tenderness and there was an enlarged lymph node in the patient's right armpit.

No abnormalities were found during standard blood tests, HIV screening, Hepatitis, or chest x-rays. The patient was hospitalized and then scheduled for a biopsy. A sample of the mass was taken by incision biopsy which will be used for histopathological examination

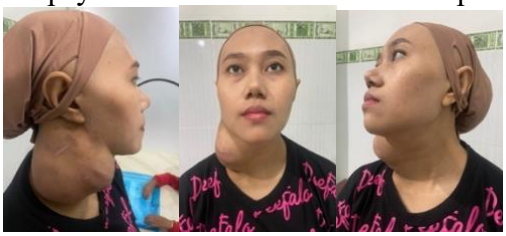

Figure 1. Patient Clinical Manifestations

Histopathological examination showed one sheet of split tissue weighing 1.3 grams, approximately 1.3 cc, brownish white in color with a rubbery consistency. Tumor cells were arranged diffusely, consisting of relatively monotonous cells, large in size, little cytoplasm, round and oval nuclei, some indented, with irregular nuclear membranes, and clearly visible nucleoli, mitosis was often found. Immunohistochemical examination showed positive results

for CD20 and CD45 and negative results for CD3 and CD30. Ki-67 was reported positive with a proliferation index of 50% in this case. The findings showed high levels of non-Hodgkin B cells (CD20+).

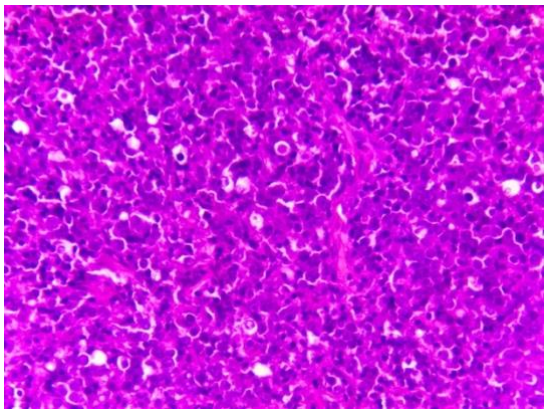

Figure 2. Histopathological picture

RESULTS AND DISCUSSION

Primary DLBCL colli (Diffuse Large B-Cell Lymphoma) is the most common lymphoma, the head and neck are the second most common areas for extra-nodal lymphoma after gastrointestinal lymphoma and spread aggressively, often associated with high morbidity and mortality rates with the most common clinical manifestations being symptoms of unilateral painless enlargement in the neck region. Approximately 2.5% of malignant lymphomas arise in the oral and paraoral cavities. Findings are usually an average age of 60 years. However, the patient in this case was 28 years old. Systemic symptoms found in patients with Hodgkin's and Non-Hodgkin's lymphoma such as fever, night sweats, and weight loss (more than 10% in 6 months), can be found in approximately 25% - 41% of patients with advanced stages. In this patient there were no such complaints.

Lymphoma tends to spread to the nose and midface, Waldeyer ring (tonsils, nasopharynx and base of the tongue), although this disease can also appear in the subcutaneous skin, testes, gastrointestinal tract, lungs. In addition, the kidneys, liver, bone marrow, pleura, and bones are less commonly affected. Histological examination of the specimen must be performed to determine the diagnosis, DLBCL classification can determine the type of GCB (germinal center b-cell type) or non-GCB through immunohistochemical analysis of CD10 and BCL6 cells. In DLBCL (Diffuse Large B-Cell Lymphoma) it is most often positive for CD20 and CD79a, less often positive for germinal center cell markers CD10 and BCL6. Patients show positive staining for CD20 and CD45 and negative results for CD3 and CD30. Ki-67 was reported positive with a proliferation index of 50% in this case. Findings showed high levels of non-Hodgkin B cells (CD20+).

In general, the standard of care for patients with early-stage DLBCL is chemotherapy followed by radiotherapy.

Treatment recommendations for diffuse large B-cell lymphoma are generally identical for nodal and extra-nodal disease. The use of chemotherapy is based on the principle that head and neck DLBCL should be considered a local manifestation of systemic disease. Patients with stage I and II (non-bulky) DLBCL usually improve with systemic chemotherapy followed by radiotherapy. The prognosis for these patients is much better than for patients with obvious systemic disease. Patients with advanced stages (stage II, stage III and bulky IV) should be treated with combination chemotherapy. The eight-stage RCHOP regimen should be considered the standard of care for patients with advanced DLBCL.

According to the International Prognosis Index (IPI) established for patients under 60 years of age, the prognosis of patients with extra-nodal DLBCL is similar to that of nodal DLBCL

Doubling time (DT) in the context of Non-Hodgkin Lymphoma (NHL) is the time required for the tumor to double in size, which is used as an indicator of tumor growth rate. DT is a very important parameter to assess tumor aggressiveness and response to therapy. Tumors with short DT tend to be more aggressive and rapidly growing, while tumors with longer DT usually show more indolent (slow growing) characteristics

Diffuse Large B-Cell Lymphoma (DLBCL) has a variable doubling time, but usually ranges from 1 to 4 weeks, indicating its more aggressive nature compared to indolent lymphoma. Rapid and intensive therapy is often required. Where the doubling time can be calculated using imaging such as CT scan, MRI, or PET scan. In the calculation, the tumor size is measured at two different points in time, and a mathematical formula is used to determine the time required for the tumor size to double

CHOP (Cyclophosphamide, Doxorubicin, Vincristine, Prednisone) combined with radiotherapy. This approach is effective in achieving cure, especially in local stage cases such as this case.

This study emphasizes the importance of early detection, accurate diagnosis, and appropriate therapy management in improving the prognosis of patients with DLBCL, including in extra-nodal locations such as the neck region.

CONCLUSION

Diffuse Large B-Cell Lymphoma (DLBCL), one type of aggressive non-Hodgkin's lymphoma, in a 28-year-old female patient. In this case, because the patient's age is younger than the average age of DLBCL patients, which is usually found in the elderly.

Diagnosis is made through physical examination and histopathology and immunohistochemistry examinations, which showed positive results for CD20 and CD45 and Ki-67 with a proliferation index of 50%. These findings confirm the presence of aggressive non-Hodgkin's B-cell lymphoma.

Patient management is focused on the use of chemotherapy protocols based on

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