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Case Report

Mantele Cell Lymphoma Presenting as a Mass in the Posterior Cervical Muscles: A Rare Case Report

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Abstract

Mantle cell lymphomas are mature B-cell neoplasms that exhibit an aggressive clinical behavior and overexpression of cyclin D1 protein. Although lymphadenopathy is the most typical manifestation of the disease, Primary extranodal disease is seen in approximately 25% of cases, while presentation at sites other than these primary extranodal sites is uncommon and typically involves the salivary glands, skin, thyroid, orbit, breast, epidural space, pleura, and spleen. Involvement of neck muscle tissue is extremely rare, and to our knowledge, we present the first reported case of CML presenting as a mass in the posterior cervical muscles.

Case Report

A 75-year-old Moroccan man presented to the clinical hematology department of Ibn Sina University Hospital in Rabat, complaining of a large mass in the posterior cervical region, which rapidly increased in size to 20 cm *15 cm in a few months. The patient reported significant discomfort and pain associated with the mass. On physical examination, a firm, palpable mass was identified in the posterior cervical region. Radiological evaluation, including imaging tests such as Computed Tomography (CT) or Magnetic Resonance Imaging (MRI) and PET scan, was performed to further assess the characteristics and extent of the mass. The imaging tests confirmed the presence of a large mass located in the muscular tissue of the neck, more specifically in the posterior cervical region. To establish a definitive diagnosis, the mass was biopsied and immunohistochemical analysis revealed the presence of characteristic markers associated with Mantle Cell Lymphoma (MCL), including positive expression of CD20, CD5 and cyclin D1 cd 23 negative. These findings, together with the histological features observed on microscopic examination, confirmed the diagnosis of MCL in this patient.

The patient's medical history, including any previous lymphoma diagnosis or treatment, underwent a thorough examination to evaluate disease progression and guide treatment decisions. A comprehensive assessment was conducted, which included laboratory tests, imaging studies, and a bone marrow biopsy, aimed at determining the stage and extent of Mantle Cell Lymphoma (MCL). The results of the bone marrow biopsy indicated no abnormalities, and blood analysis revealed normal levels of red blood cell sedimentation rate and lactate dehydrogenase.

Based on the confirmed diagnosis of MCL, a tailored treatment plan was formulated, taking into consideration factors such as the patient's age, overall health status, disease stage, and available treatment options. The patient was classified as stage IIE according to the Ann Arbor Classification. In this particular case, the therapeutic approach included tumor-reducing immunochemotherapy to reduce the size of the mass and alleviate symptoms, including attenuated-dose aracytin, bendamustine and rituximab. Regular follow-up visits and imaging examinations were scheduled to monitor the patient's response to treatment, assess disease progression and manage any treatment-related complications.

Discussion

Extranodal involvement in Non-Hodgkin Lymphoma (NHL) is observed in approximately 20-30% of all lymphoma cases [1]. Among the various NHL subtypes, Mantle Cell Lymphoma (MCL) is relatively uncommon, accounting for only 6% of all NHL cases, whether nodal or extranodal [2]. In the presented case, we describe an exceptionally rare occurrence of MCL presenting as a mass in the posterior cervical muscles.

The posterior cervical region is an unusual site for the manifestation of MCL. To the best of our knowledge, there have been no previous reports of MCL presenting specifically as a mass within the posterior cervical muscles. This highlights the uniqueness and rarity of the case. The typical presentation of MCL is characterized by lymphadenopathy, usually involving the cervical, axillary, or inguinal lymph nodes [3]. However, extra-

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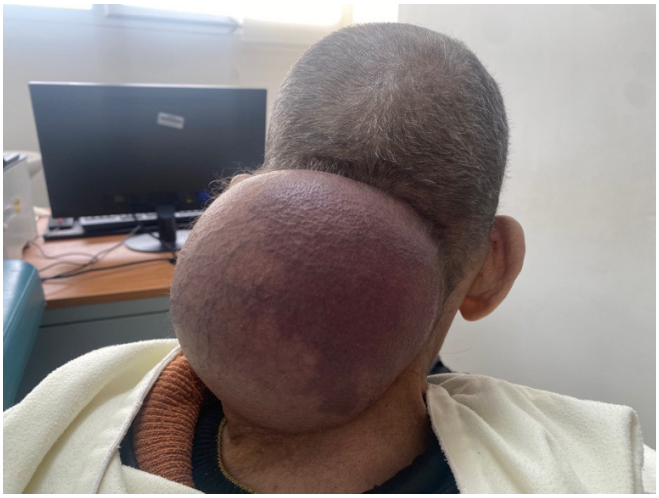

Figure 1

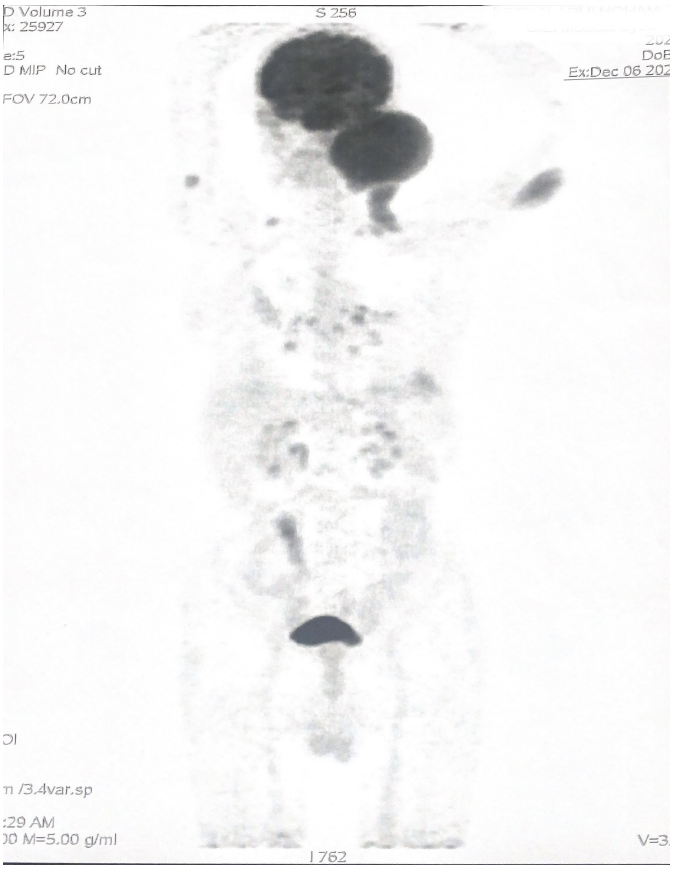

Figure 2

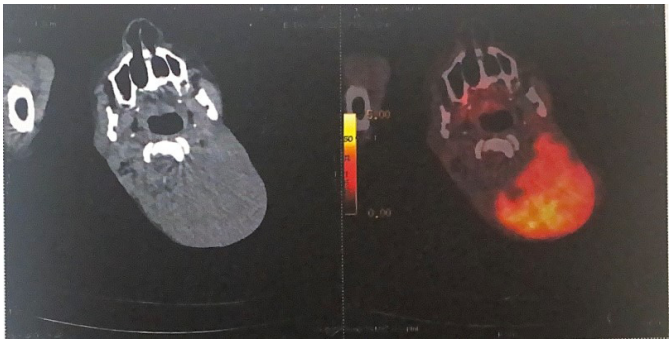

Figure 3

nodal involvement, such as involvement of the gastrointestinal tract, bone marrow, or Waldeyer's ring, can also occur in MCL [4]. The involvement of neck muscle tissue in MCL is exceedingly rare, as seen in this case.

The diagnosis of MCL relies on histopathological examination, which includes immunohistochemical analysis to detect characteristic markers. In our case, the diagnosis was confirmed through immunohistochemistry demonstrating positive expression of CD20, CD5, and cyclin D1. The detection of cyclin D1 is particularly important, as it is a specific marker for MCL and differentiates it from other lymphoma subtypes [5]. The treatment of MCL typically involves a multidisciplinary approach, considering factors such as patient age, performance status, disease stage. Regular follow-up visits and imaging studies are essential to monitor treatment response, assess disease progression, and manage any treatment-related complications.

Conclusion

As such, clinicians should remain vigilant and consider rare presentations of lymphomas, especially in patients presenting with unusual masses in atypical locations. Early diagnosis through imaging and biopsy is crucial to develop an appropriate treatment plan and improve patient outcomes.

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