

# A Case of Extranodal NK/T Cell Lymphoma Appeared in Left Leg

Xia Hong-Li<sup>1</sup>, Liu Guo-Li<sup>1</sup>, Wu An-Sen<sup>1</sup>, Zhao Rong<sup>1</sup> and Li Min-Cai<sup>1\*,2</sup>

<sup>1</sup>Department of Vascular Surgery, Xianning Central Hospital, The First Affiliated Hospital of Hubei University of Science and Technology, Hubei, P. R. China

<sup>2</sup>School of Basic Medical Sciences, Hubei University of Science and Technology, Xianning, Hubei, P. R. China

## Abstract

Hemangioma is a common disease of vascular surgery. It is the great benefit for the detection of blood flow status through the vessel imaging methods, which is the basis and key of diagnosis for hemangioma. However, it is difficult to diagnose for those hemangiomas in the deeper tissues, the changes do not show the specific imaging. Among the patients with hemangioma, we retrospectively analyzed a patient whose mass occurred in the muscle tissues of leg. The imaging of B-mode ultrasound diagnosed as hemangioma and the pathological diagnosis is administrated as the lymphoma after surgery.

**Keywords:** Hemangioma • Blood pressure • Diagnosis

## Introduction

A 56-year-old female patient, who found a mass in her left leg more than 6 months ago, was hospitalized. Before June, swelling and discomfort of the left calf appeared, leading to restricted walking; after anti-inflammatory treatment in the local area, the edema has subsided and the left calf touched an egg-sized mass. Examination: Vital signs were stable. A 3.5 cm × 2 cm mass was touched on the posterior medial side of the left calf, which was not raised on the skin. A 5 cm × 3 cm mass was touched on the posterior lateral side of the left calf, which was raised on the skin surface. The texture is hard when touched, and the mobility is poor. B-ultrasound in the clinic: mixed echo foci in the subcutaneous muscular layer of the left lower limb, considered as hemangioma [1-4].

## Case Report

The patient was admitted to the hospital with "hemangioma of the left lower limb". He has a history of hypertension and self-complained taking blood pressure lowering drugs, which has a good effect on blood pressure control. He has a history of sinusitis and pharyngitis, intermittent seizures, taking drugs, and no seizures within six months. After admission, MRI examination suggested that "the left calf soleus muscle and gastrocnemius muscle abnormal signal, consider the possibility of gastrocnemius space syndrome. After the relevant preoperative examinations were completed, according to the assessment of the condition, no contraindications were found. Under the spinal canal anesthesia, the left calf tumor resection was performed: the patient was in a prone position, after disinfecting the towel, on the large posterior lateral mass of the left calf. Make a skin incision to separate the subcutaneous tissue and the deep fascia. A 5 cm × 3 cm mass is seen on the gastrocnemius muscle. The color is different from the muscle tissue. It is lighter in color than the gastrocnemius muscle and has no adhesion to the surrounding tissues.

*\*Address for Correspondence: Min-Cai L, Department of Vascular Surgery, Xianning Central Hospital, The First Affiliated Hospital of Hubei University of Science and Technology, Hubei, P. R. China, E-mail: mincaili@163.com*

**Copyright:** © 2020 Hong-Li X, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

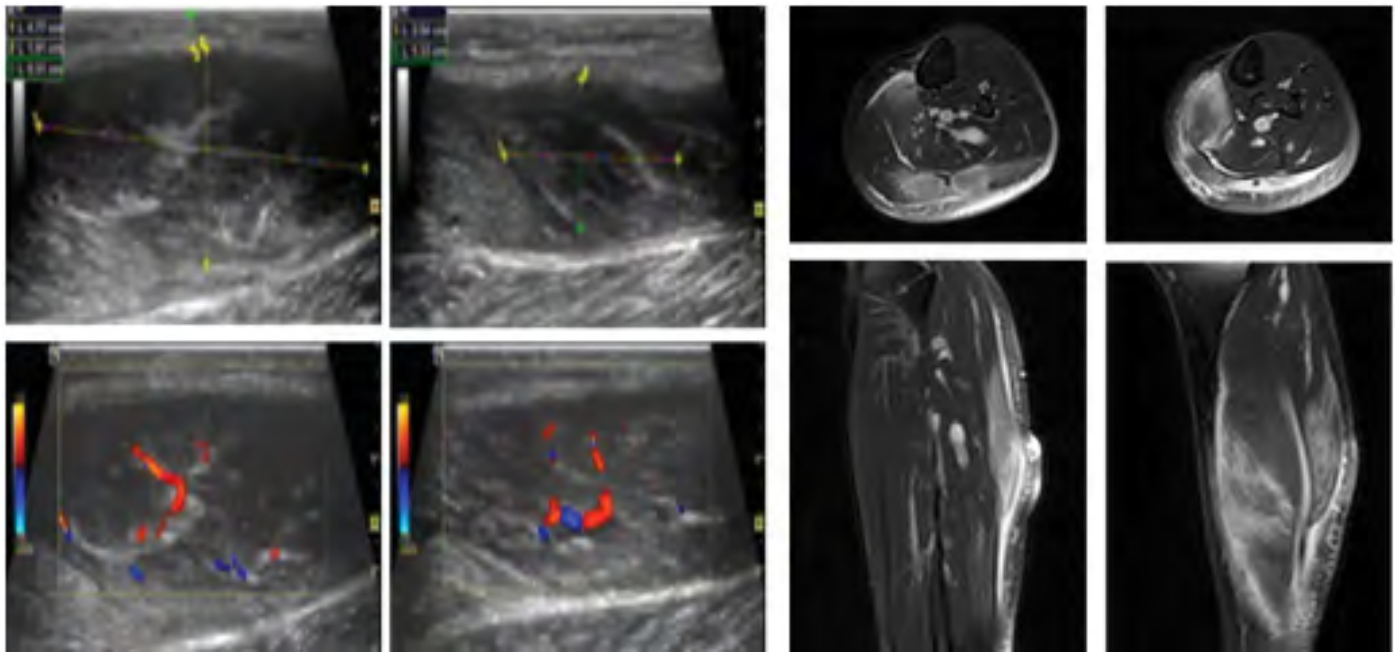
**Received** 21 September 2020; **Accepted** 09 October 2020; **Published** 16 October 2020

Extend, continue to separate along the inside of the gastrocnemius muscle, and separate a 3.5 cm × 2 cm mass, which is not clear from the gastrocnemius muscle. Carefully separate and remove the diseased tissue. According to the intraoperative findings, considering the possibility of hemangioma is not large, the surrounding diseased tissue is removed as much as possible, and finally the stump of the gastrocnemius muscle is sutured to the synergistic muscle. After irrigating the surgical field with saline for many times, after there was no obvious bleeding, a drainage strip was given, and the deep fascia, subcutaneous tissue, and skin were intermittently sutured after the gauze was counted, and the elastic bandage was used for pressure bandaging (Figure 1).

After the operation, symptomatic treatments such as anti-infection, blood pressure lowering, lipid-lowering, liver and kidney protection were performed. Surgical specimens were sent for medical examination: the hospital's surgical pathology report: a small amount of skeletal muscle and a large number of coagulative necrosis under the microscope. A small amount of lymphocyte-like cells and nuclear debris remained around the blood vessels in the necrotic tissue. Combined with immunohistochemistry, extranodal NK/T cell lymphoma cannot be ruled out. Immunohistochemistry: CD2, CD3, CD43, CD56 (+), Ki-67 (95%+) [5], other CD4, CD5, CD8, CD30, CD31, CD68, CD138, Desmin, CKpan, MPO (-), Acid-fast staining (-). According to the recommendations of the pathology report, go to the higher-level hospital for further diagnosis: the opinion of the pathology consultation in a top three hospital in Wuhan: (left lower extremity gastrocnemius) extranodal NK/T cell lymphoma (nasal type) with extensive necrosis. (The tumor tissue is necrotic with only a small amount of degenerated tumor cells remaining) Immunohistochemistry: tumor cells: CD56, GrB, TIA-1 (+), CD3, CD30, C-myc (scattered +), Ki-67 L1: about 95% [6]. Other CD5, CD20, CD79a, PAX-5, CD10, BCL-2, BCL-6, CyclinD1, SOX11, CD21, Mum-1, ALK-1, DES, MyoD1, Myogenin are all (-). Molecular detection: EBER CISH (+) [7]. Experience: Hemangioma is a frequently-occurring and common disease, which can achieve satisfactory results after surgical treatment. In this case, according to clinical symptoms, signs, auxiliary examination B-ultrasound examination, MRI examination suggested the possibility of hemangioma. However, it was found that the mass of the tumor was unclear during the operation, and the color was lighter than the muscle tissue. It was not the appearance of a blood vessel rich in blood vessels, which ruled out the hemangiomas. Two masses were found during the operation. The lesion tissue was dark and light, the blood vessels were not rich, and the boundary with the surrounding tissue was unclear. Considering the possibility of malignant lesions, full excision was performed, and the surrounding affected tissues were removed.

## Discussion

When he was sent for tissue examination after the operation, it was found to



**Figure 1.** B-ultrasound image of the patient's lower limbs, showing abundant blood flow (Left image). MRI image showed abnormal signal (Right image).

be a large amount of coagulative necrotic tissue, which was consistent with the pale color of the lesion tissue in the surgical field of vision and consistent with the non-adhesion of the lateral mass and muscle tissue during the operation. In a large piece of necrotic tumor tissue, a small amount of degenerated tumor cells was found. We believe that this part of the tissue should belong to the medial mass. During the operation, it was found that the boundary with the gastrocnemius tissue was unclear. The purpose of the medical examination report also mentioned skeletal muscle tissue. Also in these non-necrotic tissues, immunohistochemical diagnosis was extranodal NK/T cell lymphoma (nasal type). It is a rare case that our clinicians should pay attention to.

## Conclusion

In the process of waiting for the pathological report, we also found some abnormal clinical phenomena, which have an important hint for the existence of tumors. The liver function index of the patient is unstable, five times successively alanine aminotransferase is 147, 180, 196, 177, 85 U/L, aspartate aminotransferase 83, 170, 95, 119, 45 U/L, glutamine transpeptidase The enzyme is 166, 259, 324, 519, 496 U/L, after liver protection treatment, and finally adjusted to the normal range. Looking for the cause of liver disease, in order to find the cause of abnormal liver function, we give out all types of hepatitis virus infection, alpha-fetoprotein test, liver disease autoantibody test, and the results are negative. In order to exclude the impact of autoimmune diseases on the liver, when the ENA test was performed, it was found that the anti-Histone antibody was weak (+) and the anti-SMD1 antibody (+). Check for infectious diseases and conduct Anti-Nuclear Antibody (ANA) inspection. It is found that EB virus core antigen IgG antibody 3.740 and EB virus capsid

antigen IgG antibody 3.790. These results, especially the EB virus examination, are consistent with the subsequent pathological examination: EBER CISH (+) at the lesion site.

## References

1. David, Ritchie. "Is Allogeneic Stem Cell Transplantation for Transformed Follicular Lymphoma Anti-Lymphoma Stem Cell Therapy." *Leukemia Lymphoma* 49 (2008): 1852-1853.
2. Ganesh, Kasinathan. "Series of Low-Grade B-Cell Lymphoma: Follicular Lymphoma, Marginal Zone Lymphoma, Waldenstrom Macroglobulinemia and Mantle Cell Lymphoma." *OAL* 7 (2020): 1-18.
3. Bruce, Cheson. "Selected Clinical Trials in Diffuse Large B-Cell Lymphoma and T-Cell Lymphoma." *Clin Lymphoma Myeloma Leukemia* 10 (2010): 303-304.
4. Dan Jones and David M. Dorfman. "Phenotypic Characterization of Subsets of T-Cell Lymphoma: Towards a Functional Classification of T-Cell Lymphoma." *Leukemia Lymphoma* 40 (2001): 449-459.
5. Auayporn, Nademanee. "Commentary on "Autologous Peripheral Blood Progenitor Cell Transplantation for Transformed Diffuse Large-Cell Lymphoma." *Clin Lymphoma* 1 (2000): 232-233.
6. David, DiCaudo. "Cutaneous T-Cell Lymphoma, NK-Cell Lymphoma and Myeloid Leukemia." *Dermatopathol* 63 (2014): 390-403.
7. Guillaume Dighiero and Luis Borche. "B-Cell Malignancies Frequently Target the Auto-Reactive B-Cell Repertoire." *Leukemia Lymphoma* 5 (1991): 47-51.

**How to cite this article:** Xia Hong-Li, Liu Guo-Li, Wu An-Sen, and Zhao Rong, et al. "A Case of Extranodal NK/T Cell Lymphoma Appeared in Left Leg." *Clin Case Rep* 10 (2020): 1389. Doi: 10.37421/jccr.2020.10.1389