

CASE REPORTS

# Non-Hodgkin's Malignant Lymphoma with Aggressive Development

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## ABSTRACT

*Non-Hodgkin's malignant lymphoma is a hematologic malignant disease which usually responds to the polychemotherapy. We present a clinical case report of a 50 years old patient who develops an aggressive type of lymphoma. Patient develops a nodal Non-Hodgkin's malignant lymphoma who present at hospital admission as a huge tumor at the right side of the neck. Any type of treatment was a failure, the patient having a particularly aggressive form of lymphoma, resistant to all three chemotherapy regimens tested. Death occurs quickly, about one year after diagnosis and initiation of therapy.*

**Keywords:** NonHodgkin malignant lymphoma, aggressive development, chemotherapy

## BACKGROUND

Except Hodgkin lymphoma, nonHodgkin malignant lymphomas are most of malignancies of the lymphoid system (1,2).

Non-Hodgkin's Malignant Lymphoma is responsible for about 5% of all malignant tumors, ranking second in the malignancy of the head and neck after squamous cell carcinoma (1-3).

Non-Hodgkin's Malignant Lymphoma is seven times more frequently than Hodgkin lymphoma. Incidence increases with age and is more common in people over 40 years (4). Most subtypes of lymphoma are painless (1).

Diffuse B-cell lymphoma is the most common histological type of malignant nonHodgkin lymphoma, which usually occurs in people over 60 years. It is highly invasive and aggressive (4). □

## CASE REPORT

We present the case of a 50 years old patient, who comes to the ENT emergency room of Coltea Hospital for occurrence of a tumor in the right side of the neck, dyspnea, weight loss, loss of appetite.

In current medical history, we noted that the right huge tumor appears eight months ago and the patient does not undergo any treatment, with progressive increase during these

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months, till extrinsic dyspnea, due to the large size the tumor.

ENT clinical examination and cranial nerves reveals:

- On inspection – giant tumor in the right side of the neck, with 15/10 cm diameters (Figure 1, 2).
- On palpation – giant tumor in the right side of the neck, with 15/10 cm diameter, hard to the touch, slightly painful, deep and superficial adherence to plans, this moves the larynx to the left side.

General clinical examination does not show pathological elements.

By history and clinical examination, the diagnosis is: right giant cervical tumor.

To confirm the diagnosis has been carried out a series of laboratory investigations and laboratory tests. Chest radiology shows no pathological changes or pulmonary metastases. Both abdominal ultrasound and echocardiography are normal, as well as blood tests.

By history, ENT clinical examination, general clinical examination, the paraclinical and laboratory tests, the positive diagnosis is: giant cervical tumor in the right side.

To confirm the diagnosis we had to remove several clinical entities which may occur in the latero-cervical sides. Nonspecific lymphadenitis, the specific chronic diseases (toxoplasmosis, sarcoidosis, chronic granulomatosis family, histiocytosis, tuberculosis) and those caused by infectious diseases (rubella, infectious mononucleosis, brucellosis, HIV, syphilis, etc.) were out of the question because blood tests have disproved the presence of these disorders. Due to the high locality, latero-cervical differential diagnosis should be done with benign and malignant tumors of the parotid gland, as well as inflammatory diseases of this gland, coming out of the question due to good general status of the patient, with no signs of acute inflammation. Also in the differential diagnosis falls and subcutaneous tumor formations, such as fibroids, fibrosarcoma, lipoma, angioma, epidermoid cysts, physical appearance is not consistent with any of these conditions. Congenital cyst (thyroglossal tract and branchial cyst), thyroid tumors, also comes into question, but giant tumor and appearance do not match any of these conditions. Blood disorders such as Non-Hodgkin's malignant lymphoma and Hodgkin lymphoma, leukemia of various types are suspected in this patient, histopathology examina-

tion being the basis of the final diagnosis. Another condition under discussion is a possible metastasis of a malignant tumor of a malignity in ENT area, which also is important in the differential diagnosis (5).

Once positive diagnosis is made, surgical treatment is considered, practicing partial removal of the tumor, until the plan of the large vessels of the neck, up to the parotid gland (Figure 3). Extemporaneous histological examination diagnosed nonHodgkin malignant lymphoma, subsequently confirmed diagnosis and histopathological paraffin result: large cell Non-Hodgkin's malignant lymphoma probably B. For confirmation (differential diagnosis with lymph-node metastasis of undifferentiated carcinoma) immunohistochemical exam is recommended. Immunohistochemistry confirms the



FIGURE 1. Posterior view of the cervical tumor.



FIGURE 2. Anterior view of the cervical tumor.

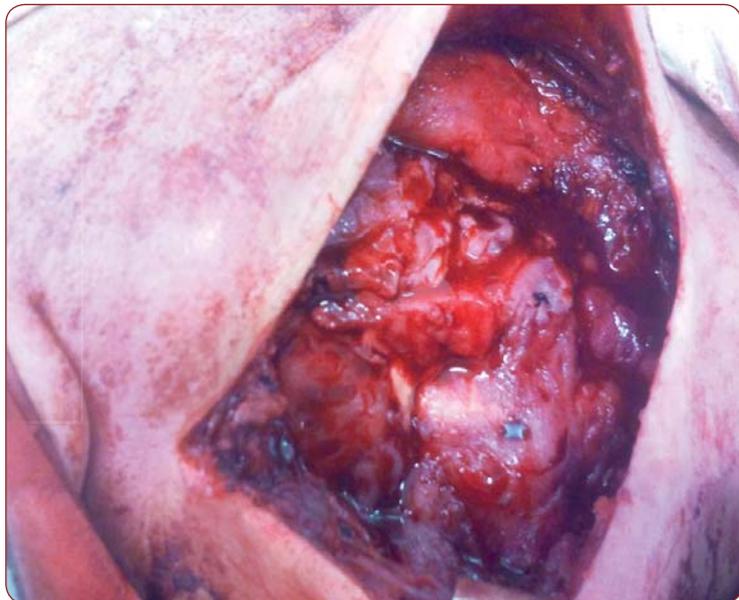


FIGURE 3. Intraoperative view of the cervical tumor.

diagnosis of large B-cell lymphoma nonHodgkin with centrofollicular origin (DLBCL GC + type).

The patient is sent to the Hematology of Coltea Hospital, where he is performing medulogram, showing normal bone marrow cellularity numeric series kept maturing myeloid series plasma cell lymphocytes with 27% lympho-



FIGURE 4. Lateral view of the cervical tumor after polychemotherapy.

cytes polymorphic small, mature cytoplasm reduced some with cleaved nucleus, younger rare small and medium plasma. However, the patient begins the first course of chemotherapy: CHOP (cyclophosphamide 1200 mg + Adriablastine 90 mg Mesna 3 ampoules + Vincristine 2 mg + dexamethasone 16 mg / day). Due to lack of therapeutic response and the significant increase in volume of latero-cervical tumor formation straight manifestations accompanied by compression of ENT hemisphere structures (dyspnoea, dysphonia, dysphagia, otalgia) is directs the patient to clinical radiotherapy, one of performing radiotherapy with 5000 cGy / volume target (treatment well tolerated).

Back in hematology clinic, the patient is receiving chemotherapy with CHOP and Mabthera. After six cycles of CHOP polychemotherapy and five Mabthera, because the patient's condition gradually weakened, showing by repeated episodes of faint background vagal phenomena, compression frequent upper respiratory and vascular, evidenced by dyspnea, bradycardia, neck pain with cephalic irradiation, chemotherapy-induced bone marrow aplasia, and no observed reduction in size of tumor, the hematologist decided to change the chiomioterapic treatment with MINE (Ifosfamide 6 g DT + Mesna + Mitoxantrone 10 mg + Etoposide DT 300 mg).

After beginning treatment with MINE, the patient's condition is worsening, episodes of faintness, anxiety and the effects of extrinsic compression caused by giant latero-cervical tumor are much more common. Sputum examination revealed the presence of *Staphylococcus aureus* and *Candida albicans* and *Candida krusei* (Figure 4, 5).

Reassessment of patient computer tomography reveals: replacement process latero-cervical space law, 10.5 / 9.7 cm, net shape, irregular, heterogeneous by the presence of hypodense areas, most located submandibular (2.3/1.1 cm). The process includes the submandibular glands and parotid gland; pharynx invades the entire length, with pyriform sinus and fold delete ariepiglotic, the invasion of the epiglottis, base of tongue, soft palate and uvula on the side, right side wall of the nasopharynx relief disorganization. The invading the pharyngeal constrictor muscles, palato-pharyngeal stilloglos, stilohioid, tensor of the soft palate, long neck and long head, sternocleidomastoid. The

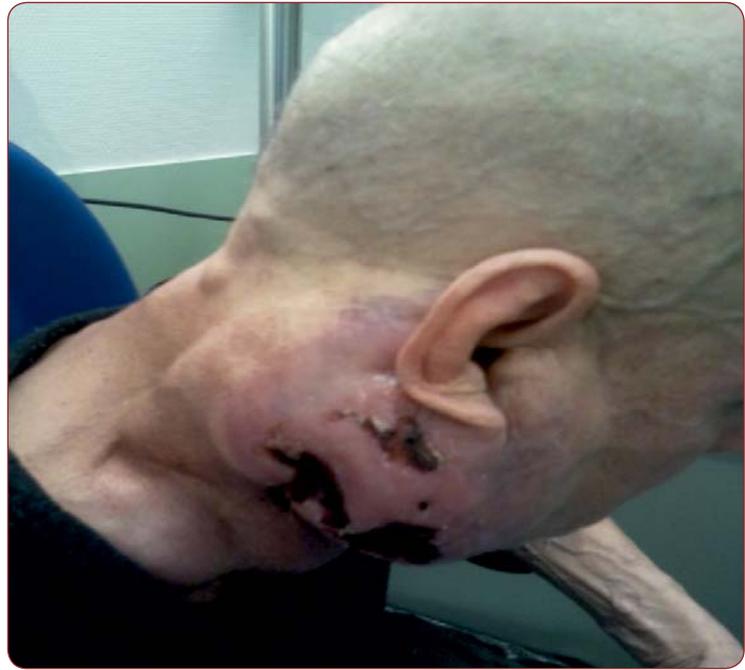
package includes vascular as latero-cervical, compresses and pushes lateral common carotid, internal carotid and right internal jugular vein. We cannot view the right external carotid artery or external jugular vein.

After eight administrations of Mabthera and ten courses of chemotherapy (CHOP six and three with MINE), the patient is receiving a course of polychemotherapy GDP (Gemcitabine 2000 mg DT + Cisplatin 75 mg + Dexamethasone 5 ampoules/day) during which the patient has significant bleeding from arterial branch from the latero-cervical tumor righteous without being able to perform vascular ligation due to significant tumor infiltration. Patient is transferred to the General Surgery of Clinic Emergency Hospital in an attempt to perform homeostasis by arterial embolization. Arterial angiography reveals tumoral formation right latero-cervical protrusion, imprecisely defined, hypovascular, which receives afferent occipital artery, facial artery and posterior auricular artery without angiographically visible areas of active bleeding.

Approximately one year after diagnosis and starting treatment with polychemotherapy, the patient die from cardiac arrest unresponsive to resuscitation.

#### Particularities of the case

1. Although at presentation, the patient had a good physiological and biological status, his condition was rapidly deteriorated and he was a case of highly aggressive Non-Hodgkin's malignant lymphoma.
2. Despite the correct treatment led by hematologist, the end is to exitus, death occurred at a relatively short period of treatment (approximately one year).



**FIGURE 5.** Lateral view of the cervical tumor after polychemotherapy.

3. Due to the large size of the tumor throughout the diagnosis and treatment of the patient shows signs of extrinsic compression, tumor size preserving the very high, which shows resistance to chemotherapy treatment of this type of lymphoma.

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