Follicular lymphoma of the parotid gland

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DOI: https://doi.org/10.33545/comed.2019.v2.i3a.73

Abstract
We report a case of a 69-year-old patient with a history of breast carcinoma diagnosed 2 years ago. The patient was referred to our clinic with symptoms of swelling in the parotid gland suspected for metastases. However, fine needle aspiration revealed lymphoproliferative disease. After surgical removal of the gland, lymphoma was identified.

Keywords: Lymphoma, parotid gland tumors, metastases

1. Introduction
Lymphoma is a malignant neoplasm identified in lymphoid tissues. Two basic categories are known nowadays: Hodgkin's lymphoma (HL) and non-Hodgkin's lymphoma (NHL). Subclassifications are also established. High percentage of all lymphomas is presented within the lymph nodes, although, lymphoma in extranodal sites is also found. Head and neck are common regions affected by lymphoma; with nearly 5% of extranodal variants are identified in the salivary glands [1]. Generally, primary lymphomas in the salivary glands is a rare finding, as they represent between 1.7% and 3.1% of salivary malignant tumors [2]. Malignant lymphoma in the parotid gland is unusual and unexpected clinical finding. It comprises non-specific mass, completely indistinguishable from other malignant and benign pathologies. However, of all salivary glands, the parotid gland is the most commonly affected by various tumors, as well as by lymphoma. Although, lymphomas in the submandibular and minor salivary glands have also been reported [2, 3]. We present a clinical case of patient with parotid gland lymphoma. It was referred to our clinic due to previously misdiagnosed metastasis after breast carcinoma.

2. Case report
A 69-year-old female patient was referred with complaints of parotid gland mass, identified by herself nearly 3 months ago. Medical history of pain, functional disturbances and rapid growth was not reported. Two years ago the patient had undergone chemo- and radiotherapy due to breast carcinoma, as at the time of the presentation in our clinic, a remission in the region of the primary tumor was documented. The patient was referred by the physicians due to concerns about metastatic disease from the primary cancer, affecting the right parotid gland.

Clinically facial asymmetry was identified, with the right parotid gland was found swollen and dense on palpation. The overlying skin was with normal color and did not show any signs of alteration (i.e. redness, ulceration or infiltration). When milking the right parotid gland, a normal saliva leakage was seen intraorally. There was lack of pain and facial palsy. No other pathological masses were found on palpation in the maxillofacial and cervical area. Presence of well-defined solitary nodular formation in the right parotid gland with a size of 19.3mm/17.2mm was confirmed by CT scan and MRI performed prior the treatment planning. Fine needle biopsy analysis revealed lymphoproliferative disease.

Surgical removal of the whole parotid gland was performed with preservation of the facial nerve. After getting the results of the histopathological examination, follicular lymphoma (grade 1-2) with marginal differentiation was identified and metastatic disease was excluded. The patient was referred for chemotherapeutic therapy. Long-term follow-up was recommended.
3. Discussion

Nearly 84% to 97% of lymphomas in the parotid gland are B-cell and NHL. The development of swelling/mass in the parotid gland might be the first sign of malignant lymphoma, as the gland might also be secondarily affected in cases of previously identified lymphoma. Currently a parotid gland follicular lymphoma is presented. This type of tumor is typically a slow-growing or indolent variant of NHL that arises from B-lymphocytes, making it a B-cell lymphoma. Follicular lymphoma comprises nearly one third of all NHL. The course of the disease is commonly unpredictable, as it usually responds to initial treatment, followed by relapses; in some cases a histologic transformation into high-grade NHL is seen. In our case no complaints of pain or functional disturbances were identified, as the clinical presentation is typical for parotid gland lymphoma. A strong sing that the parotid gland is not affected by late-stage low-grade glandular epithelial malignancy was the lack of facial nerve palsy. The lymphoma may arise within the parotid gland lymph nodes, or might be associated with the glandular parenchyma. In the second case it is usually considered MALT (mucosa-associated lymphoid tissue) lymphoma. However, in the currently presented case MALT was not identified.

The parotid gland could be affected by vast variety of neoplastic and non-neoplastic pathologies. In the medical history of the patient, breast carcinoma has been diagnosed 2 years ago. After a few courses of chemo- and radiotherapy a remission has been achieved. However, when referred to our clinic, concerns were rising about potential presence of metastases in the parotid gland. Together the clinical symptoms assessment, a thorough analysis of the paraclinical tests is mandatory prior surgical therapy. Therefore, we required SC scan and MRI, as well as fine needle biopsy before the diagnosis establishment. Thus we managed to collect enough data from all, medical history, clinical and paraclinical tests, and to proceed to the surgical removal of the whole gland.

4. Conclusion

Parotid gland lymphoma is a relatively uncommon pathological finding. The symptoms of follicular parotid lymphoma are non-typical, as it could be easily misdiagnosed. The pathology is usually not considered to be curable and chronic course of the disease is usually observed.

5. Reference