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PRIMARY NON-HODGKIN'S LYMPHOMA OF THE LARYNX - CASE REPORT

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Abstract

Introduction: Primary non-Hodgkin's lymphoma (NHL) of the larynx is very rare, less than 100 cases have been reported in the literature, and this is the first such known case in our clinic in more than 30 years.

Case report: A case report of a 61-year-old man with 4-month history of dysphonia came at the University Clinic of Ear, Nose and Throat (ENT Clinic). Tumor formation of the right false vocal cord was seen with indirect laryngoscopy and fiberoptic nasopharyngolaryngoscopy. The tumor was completely removed endoscopically. Pathohistological analysis proved the presence of small lymphocytes mixed with plasmocytoid lymphocytes and plasma B cells. The diagnosis of primary NHL of the larynx was confirmed at the University Clinic of Hematology (Haematology Clinic). Twelve months after the operative treatment, during the control fiberoptic nasopharyngolaryngoscopy examination tumor formation in the epipharynx was visualized. CT and MR on the pharyngeal region confirmed the tumor mass in the epipharynx. Endoscopically, the tumor of the epipharynx was completely removed. The pathohistological finding was a neoplasm with morphological features of non-Hodgkin's lymphoplasmocytic type lymphoma, which was morphology identical with the previous finding. No additional radio and chemotherapy were ordinated to the patient. In the interval of three years, he is with clean findings on the control examinations at the ENT Clinic and at the Haematology Clinic.

Conclusion: Primary NHL of the larynx is a rare entity. Direct laryngoscopy with biopsy for pathohistological examination is necessary for an accurate diagnosis. Treatment and prognosis certainly depend on the stage and grade of the tumor.

***Keywords*:** larynx, non-Hodgkin's lymphoma, pharynx.

Introduction

Primary non-Hodgkin's lymphoma (NHL) of the larynx is very rare, less than 100 cases have been reported in the literature [1] and this is the first such known case at our clinic in more than 30 years. It accounts for less than 1% of all laryngeal neoplasms [2]. Primary NHL may be confined to the larynx or may be a single manifestation of a systemic process. Most primary lymphomas occur in either supraglottis or subglottis due to a lack of lymphoid tissue in the glottis. In terms of diagnostic and therapeutic approach, a sample of biopsy and airway stabilization is initially required, which may include endoscopic debulation, tracheotomy, or non-surgical treatment whenever possible. In cases of major airway lesions, various combinations of intravenous steroids, external radiation therapy, and chemotherapy have been used [3]. In solitary laryngeal lymphoma, radiation therapy may be the only therapeutic modality necessary to achieve an excellent prognosis [4, 5].

Objective

The objective of this case study is to demonstrate our diagnostic and therapeutic experience in dealing with primary NHL of the larynx as an extremely rare and aggressive disease that requires special diagnostic and therapeutic attention.

Case report

A case report of a 61-year-old man who came at the University Clinic of Ear, Nose and Throat due to a 4-month history of dysphonia, in the absence of a history of dysphagia, haemoptysis, weight loss or dyspnea, and other associated comorbidities. From the patient's personal history, it is clear that he does not smoke cigarettes, does not consume alcohol. The family history was negative for diseases of interest.

Indirect laryngoscopy and fiberoptic nasopharyngolaryngoscopy were performed according to a standard protocol, showing a tumor formation on the right false vocal cord of the larynx. Microlaryngoscopy showed a well-demarcated tumor formation with a pinkish discoloration and dimensions of 3x6 mm, which was completely removed.

The sample was sent for pathohistological analysis which proved the presence of small lymphocytes mixed with plasmocytoid lymphocytes and plasma B cells.

An examination was performed at the University Clinic of Hematology by confirming the diagnosis of primary NHL of the larynx.

The patient was regularly monitored clinically and with fiberoptic nasopharyngolaryngoscopy at the University Clinic of Ear, Nose and Throat, regular examinations were performed at the University Clinic of Hematology. Twelve months after the operative treatment of the control examination with fiberoptic nasopharyngolaryngoscopy, a smooth, pinkish change in the posterior wall of the epipharynx was visualized. Due to which CT and MR of the pharyngeal region were performed for evaluation of the tumor mass in the epipharynx with finding: Tumor mass with dimensions 7x5 mm and irregular shape and edges, was viewed right in projection of the mucosa on the lateroposterior wall of the oropharynx and at the height of the soft palate with a light prominence to the epipharynx. It is postcontrastly dyed in color and does not show diffusion restrictions. Differentially diagnostic may originate from lymph tissue in the Waldeyer's ring. The change is clearly distinguished from serosa and surrounding parapharyngeal and retropharyngeal tissue.

Endoscopically, the tumor was completely removed from the posterior wall of the epipharynx and referred for histopathological verification.

Pathohistological findings of the biopsy material: Microscopic examination of the biopsy material showed that squamous metaplasia or respiratory cylindrical epithelium was seen focally on the surface of the fragments, and subepithelially was found a neoplasm built from small lymphocytes among which plasmocitic lymphocites were identified. In addition, mastocytes are seen focally. According to the above-mentioned morphology, a neoplasm with morphological characteristics of non-Hodgkin's lymphoplasmocytic lymphoma was found in the submitted biopsy material, which was morphology identical with the previous finding.

The patient is regularly monitored postoperatively at the University Clinic of Ear, Nose and Throat and at the Clinic of Hematology. On control examinations with fiberoptic nasopharyngolaryngoscopy, the mucosa of the larynx, epipharynx and oropharynx is intact, without the presence of pathological changes. No additional radio and chemotherapy were given to the patient. In the interval of three years, he is in good general condition with clear findings on the control examinations at the University Clinic of Ear, Nose and Throat and at the University Clinic of Hematology.

Discussion

Primary NHL of larynx is very rare. Less than 100 cases have been reported in the literature. Most commonly, the larynx is involved secondary to regional lymph node lymphoma [1]. According to the literature, the primary NHL of the larynx predominates in male subjects over the age of fifty. Dysphonia, slowly progressive dyspnea and unilateral otalgia are predominant symptoms. In terms of the laryngoscopic finding, the most common localization is the supraglottic level, pinkish-gray color of the tumor change, and most often a smooth tumor surface [6]. In terms of localization, the primary NHL of the larynx is usually supraglottic, in the ariepyglottic folds, as a submucosal mass, and the mucosa is usually not ulcerated. An unusual complication of primary NHL of the larynx is a subglottic invasion of the larynx and trachea that can cause severe airway obstruction that requires a multidisciplinary approach [7,8]. This case study shows a 61-year-old man with dysphonia as the predominant symptom, but no progressive dyspnea or otalgia, the most commonly described predominant symptoms in the literature. The macroscopic finding was a submucosal tumor placement without ulcerative and necrotic changes in the mucosa. Regarding the localization of the tumor formation during the first fiberoptic nasopharyngolaryngoscopy examination, it was localized on the the right false vocal cord, while the fiberoptic nasopharyngolaryngoscopy examination after 12 months it was localized in the epipharynx which corresponds to the most common localizations described in the literature.

The histological findings and stages of disease progression are closely related to the determination of the therapeutic strategy. That's why a biopsy should immediately be performed following suspicious findings [9]. According to the experience of the literature, the treatment of non-Hodgkin's lymphoma of the larynx is based on local radiotherapy of the affected area with the tumor, and in cases of extralaryngeal spread of the disease chemotherapy is included. According to the literature, the prognosis is better in cases with limited laryngeal localization than in cases with multiple localization [6].

Conclusion

Primary non-Hodgkin's lymphoma of the larynx is a rare entity. Early symptoms are subtle and nonspecific, and confirmation of the diagnosis is often difficult. Although primary non-Hodgkin's lymphoma of the larynx is rare, it should not be forgotten in the differential diagnosis, when evaluating the mass in the neck, and especially in its supraglottic localization. Due to the rarity of this type of tumor, optimal diagnostic and therapeutic management remains controversial. Direct laryngoscopy with biopsy for pathohistological examination is necessary for an accurate diagnosis. According to the latest therapeutic trends, non-Hodgkin's lymphoma of the larynx should not be treated as a separate entity of disease, but as an unusual presentation of non-Hodgkin's lymphoma. Treatment and prognosis certainly depend on the stage and grade of the tumor.

References

1. Naciri S, Bennani-Baiti A.A, Glaoui M, Mouzount H, Ghanem S, Essakali L, Kzadri M, and Errihani H. Mantle cell lymphoma of the larynx: Primary case report. J Med Case Rep. 2012; 6: 201.
2. Andriychuk A, Kristensen BW. Non-Hodgkin lymphoma of the larynx. Ugeskr Laeger. 2010;172(42):2901–2.
3. Diebold J, Audouin J. Primary lymphoplasmocytic lymphoma of the larynxr: A rare localization of MALT-type lymphoma. Ann Otol Rhinol Laryngol. 1990;99:577–580.
4. Swerdlow JB, Merl SA. Non-Hodgkins Lymphoma limited to the larynx. Cancer. 1984;53:2546–2549.
5. Chen KTK. Localized laryngeal lymphoma. J Surg Oncol. 1984;26:208–209.
6. M Remacle, N Deggouj, H Noel, B Bertrand. Non-Hodgkin Lymphomas of the Larynx. Apropos of a Case, Acta Otorhinolaryngol Belg. 1987;41(1):49-65.
7. Cobzeanu MD, Costinescu V, Rusu CD, Mihailovici S, Grigoras M, Miron L, Paduraru D. Arama ALaryngotracheal non-Hodgkin's lymphoma. Chirurgia (Bucur) 2010;105(1):131–6.
8. Izadi F, Parvas E, and Derakhshandeh V. Lymphoma of larynx presented with hoarseness: Case report. Med J Islam Repub Iran. 2014; 28: 21.
9. Storck K., Brandstetter M., Keller U., Knopf A. Clinical Presentation and Characteristics of Lymphoma in the Head and Neck Region. Head Face Med. 2019;15(1):1.