

Case Report

A Clinical Case of Synovial Sarcoma of the Larynx as a Giant Vocal Fold Polyp

Magdalena Chirilă^{1,2*}, Vera Dinescu¹, Maria Petri¹ and Cristina Țiple¹

¹Department of Otorhinolaryngology, Iuliu Hatieganu University of Medicine and Pharmacy, Romania

²Department of Otorhinolaryngology, Emergency County Hospital, Romania

*Corresponding author: Magdalena Chirilă, Department of Otorhinolaryngology, Iuliu Hatieganu University of Medicine and Pharmacy, Emergency County Hospital, Romania, Email: chirila_magda@yahoo.com

Received: September 01, 2014; Accepted: October 13, 2014; Published: October 15, 2014

Abstract

Synovial cell sarcoma of the larynx is a very rare malignant tumor. We present the case of a 62-years-old man with a monophasic synovial sarcoma of the larynx, clinically presented as a vocal fold giant polyp. CO₂ laser assisted surgery could be use as less invasive but effective approach than laryngectomies for a limited lesion, particularly for a vocal fold tumor with free surgical borders.

Keywords: Monophasic synovial sarcoma; Microlaryngoscopy; Laryngectomy

Introduction

Synovial cell sarcoma represents a rare group of malignant tumors, particularly in the head and neck region (3-9%) and the larynx is the least frequent site of occurrence [1]. Only 20 cases of laryngeal synovial sarcoma have been described in the English literature to date [1-3]. Synovial sarcoma typically affects young individuals of the second to fourth decade in the extremities and has a male preponderance [4].

In this paper we present the case of a 62-years-old man with a monophasic synovial sarcoma of the larynx, clinically presented as a vocal fold giant polyp.

Case Report

A 62-years-old man presented in March 2012 at the Otorhinolaryngological Department of our hospital with severe dysphonia for a couple of months. A video laryngoscopy revealed a giant polypoid mass arising from the anterior 2/3 of left vocal fold. The mobility of the vocal fold was preserved. Neck lymphadenopathy was absent clinically. The CT scan showed a polypoid mass on the left vocal fold with low to moderate heterogenous enhancement after the injection of contrast substance. No enlarged lymph node was present. The tumor was staged as T1NoMo.

We performed a biopsy under general anaesthesia in suspension microlaryngoscopy (Figure 1). The frozen section suggested we had a spindle cell tumor. Because the tumor respected the vocal fold ligament (Figure 2) a CO₂ laser assisted type I cordectomy was performed (Figure 3). The final histological exam showed a sarcomatous area characterized by a cellular spindle cell infiltration without any special pattern. The immunohistochemical examination for vimentin antibody and CD99 was positive (Figure 4a and 4b). The sample confirmed the integrity of the surgical borders.

The patient is free of disease 28 months after the initial diagnosis with a minimum glottic failure and slightly dysphonia (Figure 5).

Discussion

We add a new case of laryngeal synovial sarcoma with some



Figure 1: Giant left vocal fold "polyp" (suspension microlaryngoscopy).



Figure 2: The vocal ligament seems not be involved.



Figure 3: Type I CO₂ laser assisted cordectomy.

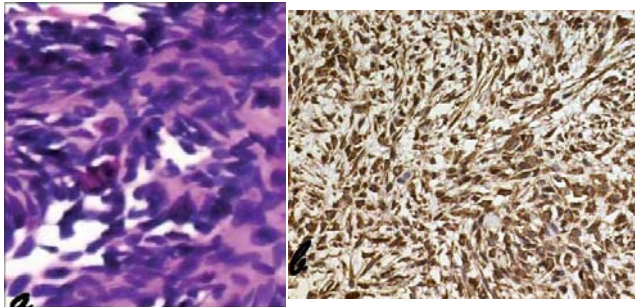


Figure 4: a) a highly cellular tumor with spindle-shaped cells (frozen section); b) Strongly positive IHC for vimentin (20 ×).

specific clinical features. The clinical presentation as a huge polyp on the left vocal fold is unique in the English literature. The surgical treatment was comprehensive but functional and we had two reasons for that: first, the tumor respected the vocal fold ligament; second, the patient is a primary school teacher and he needs his voice. The integrity of the surgical borders was the fact which decided the follow-up schedule.

Laryngeal synovial sarcoma is an extremely rare form of laryngeal tumors, squamous cell carcinoma accounts for over 90% of all laryngeal malignancies [2]. In a comparative analysis with synovial sarcoma of the extremities Salcedo-Hernández et al [5] showed that head and neck sarcomas had similar survival rates compared to sarcomas of limbs. In 2013 Luna-Ortiz et al [3] described a 21 years old woman with an aryepiglottic folds sarcoma. They performed a supraglottic laryngectomy with 2 years free disease and concluded that the organ preservation surgery seems to be indicated.

Prognosis for patients with synovial sarcoma is related to primary tumor extent, tumor grade, and size [6]. The optimal treatment for localized synovial sarcomas is complete surgical resection [6-9]. Because of the lack of nodal metastasis, neck dissection is not necessary in the absence of nodal involvement [10]. When the surgical borders are involved, adjuvant chemotherapy or radiotherapy can be given [9,11,12].

Conclusion

In conclusion, laryngeal synovial sarcoma should be considered an aggressive tumor, like its counterpart in the extremities. CO₂ laser assisted surgery could be use as less invasive but effective approach than laryngectomies for a limited lesion, particularly for a vocal fold tumor with free surgical borders.

References

1. Bao YY, Wang QY, Zhou SH, Zhao K, Ruan LX, Yao HT. Poor outcome

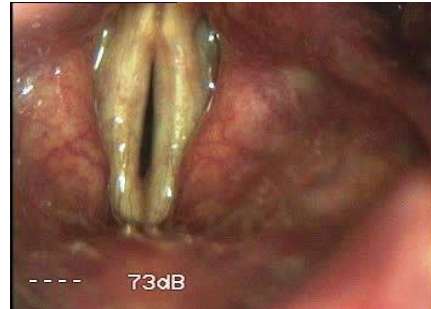


Figure 5: Larynx aspect at 28 months after initial diagnosis (video laryngoscopy).

of comprehensive therapy in a case of laryngeal synovial sarcoma. *Radiol Oncol.* 2013; 47: 111-118.

2. Saxby C, Bova R, Edwards M. Laryngeal synovial sarcoma: a rare clinical entity. *Case Rep Otolaryngol.* 2013; 2013: 578606.
3. Luna-Ortiz K, Cano-Valdez AM, da Cunha IW, Mosqueda-Taylor A. Synovial sarcoma of the larynx treated by supraglottic laryngectomy: case report and literature review. *Ear Nose Throat J.* 2013; 92: E20-26.
4. Jayachandra S, Chin RY, Walshe P. Synovial cell sarcoma of the larynx. *Hematol Oncol Clin North Am.* 2012; 26: 1209-1219.
5. Salcedo-Hernández RA, Lino-Silva LS, Luna-Ortiz K. Synovial sarcomas of the head and neck: comparative analysis with synovial sarcoma of the extremities. *Auris Nasus Larynx.* 2013; 40: 476-480.
6. Sato T, Hasegawa H, Sugawara M, Yasuda M, Morita K, Nakahira M, et al. Free jejunal transfer for a 15-year-old girl with synovial sarcoma of the hypopharynx. *J Plast Reconstr Aesthet Surg.* 2011; 64: 1100-1103.
7. Mhawech-Fauceglia P, Ramzy P, Bshara W, Sait S, Rigual N. Synovial sarcoma of the larynx in a 79-year-old woman, confirmed by karyotyping and fluorescence in situ hybridization analysis. *Ann Diagn Pathol.* 2007; 11: 223-227.
8. Sridhar Reddy D, Shobhan Babu A, Lenin A. Synovial sarcoma of larynx-a rare site. *Indian J Otolaryngol Head Neck Surg.* 2007; 59: 51-52.
9. Capelli M, Bertino G, Morbini P, Proh M, Falco CE, Benazzo M. CO₂ laser in the treatment of laryngeal synovial sarcoma: a clinical case. *Tumori.* 2007; 93: 296-299.
10. Papaspyrou S, Kyriakides G, Tapis M. Endoscopic CO₂ laser surgery for large synovial sarcoma of the larynx. *Otolaryngol Head Neck Surg.* 2003; 129: 630-631.
11. Bilgic B, Mete O, Oztürk SA, Demiryont M, Keles N, Basaran M. Synovial sarcoma: a rare tumor of larynx. *Pathol Oncol Res.* 2003; 9: 242-245.
12. Alberty J, Dockhorn-Dworniczak B. Monophasic synovial sarcoma of the neck in an 8-year-old girl resembling a thyroglossal duct cyst. *Int J Pediatr Otorhinolaryngol.* 2002; 63: 61-65.