Clear Cell Sarcoma of Sternum: A Case Report of Unusual Location and Response to Doxorubicin-Ifosfamide based Chemotherapy.

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Abstract

Introduction

Clear cell sarcoma (CCS) is a rare tumour of the soft tissue, also known as malignant melanoma of soft part representing about 1% of soft tissue tumors. It classically involves tendons and aponeuroses. Diagnosis is finalized using histological and immunohistochemical assessment. The main treatment is surgery followed by chemotherapy. there are some investigations indicating that CCS could be the consequence of radiotherapy. Clear cell sarcoma is difficult to catch early and is prone to relapse and spread after initial diagnosis.

Presentation of case

A 45-year-old patient presented with a mass sized 6×5×2 cm of the sternal region and mass sized 2.5x2.5x1cm of left axillary region. Initially, the mass were interpreted as lipoma and The patient has undergone surgery for 7 times due to relapse of the mass. Pathological diagnosis after seventh surgical removal was CCS. After pathological diagnosis, the patient undergone chemotherapy for as many as 6 cycles and tumor decreased in size.

Discussion

This is the only CCS case that we found in our Hospital in the last 5 years. The patient of this case underwent definitive surgical treatment for 7 times due to misdiagnosis of the mass to lipoma . Anatomic pathology examination showed a clear cell sarcoma and chest ct-scan with contrast showed destructive lesions in the manubrium of sternum and metastatic nodules were found in both lungs. The patient underwent 6 times chemotherapy with Doxorubicin-Ifosfamide based Chemotherapy. 4 months after chemotherapy procedure, the masses is decreased in sized.

Conclusion

CCS is very rare. Accurate diagnosis of CCS is very important. Initial misdiagnosis may cause progresive and relapse of tumour, which is correlated to the prognosis and metastatic process. CCS in sternum in this case is an unusual location and showed a good response with Doxorubicin-Ifosfamide based chemotherapy that had been given. Follow-up is ongoing.

Keywords: Clear cell sarcoma, Sarcoma, Malignant melanoma of the soft tissue, Surgery, Clear cell sarcoma of the soft tissue and sternum, Clear cell sarcoma in response to chemotherapy, Doxorubicin-Ifosfamide based chemotherapy.

References

1. Abdollahi A, Khatami F, Tavangar SM. Clear Cell Sarcoma: A Case Report and Review of Literature. Int J Hematol Oncol Stem Cell Res. 2018;12(1):65–68.
2. Juel J, Ibrahim RM. A case of clear cell sarcoma-A rare malignancy. Int J Surg Case Rep. 2017;36:151–154. doi:10.1016/j.ijscr.2017.05.034
3. Al-Absi E., Farrokhyar F., Sharma R., Whelan K., Corbett T., Patel M. A systematic review and meta-analysis of oncologic outcomes of pre- versus postoperative radiation in localized resectable soft-tissue sarcoma. Ann. Surg. Oncol. 2010;17:1367–1374.
4. Mavrogenis A, Bianchi G, Stavropoulos N, Papagelopoulos P, Ruggieri P. Clinicopathological features, diagnosis and treatment of clear cell sarcoma/melanoma of soft parts. Hippokratia. 2013;17(4):298–302.
5. Ibrahim, Rami & Steenstrup, Signe & Juel, Jacob. (2018). Clear cell sarcoma-A review. Journal of Orthopaedics.15.10.1016/j.jor.2018.08.039.



I am a second year General Surgery Resident in Saiful Anwar Hospital, Malang,Indonesia.
I am interested in oncology surgery and this is is my first international poster presentation.
I take this case because this is the only clear cell sarcoma in my hospital for the last 5 years.
my goal is to share knowledge and present a rare case and its response to treatment.
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