Atención Primaria Práctica 6 (2024) 100203

Atención Primaria Práctica

www.elsevier.es/appr

Clinical report

Round cell sarcoma in an adult patient from a resource-limited area in Somalia: A case report

Abdiwahab Osman Saed[a,c], Rahma Mouse Aden[a,c], Sakarie Sh. Dahir Hussein[a,c], Yousuf Ismail Suleiman[a,c], Mohamed Osman Saed[a,c] and Hassan Sh. Abdirahman Elmi[b,d,*]

[a] College of Health Science, School of Medicine, Amoud University, Borama, Somalia
[b] Department of Biology, Amoud University, Borama, Somalia
[c] Internal Medicine Department, Borama Regional Hospital, Borama, Somalia
[d] Faculty of Science, Charles University, Prague, Czech Republic

ARTICLE INFO

Article history:
Received 14 May 2024
Accepted 10 June 2024

Keywords:
Round cell sarcoma
Resource-limited area
Healthcare infrastructure
Biopsy
Liver metastasis
Sarcoma management

ABSTRACT

Introduction: A tumor refers to an abnormal mass of cells in the body, which can be either benign or malignant. Among cancers, breast cancer is the most frequently diagnosed in females, followed by lung cancer and prostate cancer. Sarcomas, comprising over 70 different subtypes, represent approximately 1% of all cancers.
Case presentation: A 21-year-old from Borama, Somaliland/Somalia, presented with a 5-day fever, along with other symptoms. Past surgical history revealed a thyroid lesion diagnosed as round cell sarcoma. Imaging showed thyroid carcinoma with metastases.
Discussion: The rising cancer incidence in sub-Saharan Africa is attributed to factors like increased life expectancy and lifestyle changes. Challenges in rare cancer cases include late-stage diagnosis and limited treatment options. Efforts to persuade the patient for treatment are ongoing.
Conclusion: Improvements in healthcare infrastructure, access to imaging, and pathology services, along with cultural sensitivity, are crucial in managing rare cancers like round cell sarcoma in sub-Saharan Africa.

Sarcoma de células redondas en un paciente adulto de un área de recursos limitados en Somalia: informe de un caso

Palabras clave:
Sarcoma de células redondas
Área de recursos limitados
Infraestructura sanitaria
Biopsia
Metástasis hepática
Manejo del sarcoma

RESUMEN

Introducción: Un tumor se refiere a una masa anormal de células en el cuerpo, que puede ser benigna o maligna. Entre los cánceres, el cáncer de mama es el más frecuentemente diagnosticado en mujeres, seguido por el cáncer de pulmón y el cáncer de próstata. Los sarcomas, que comprenden más de 70 subtipos diferentes, representan aproximadamente el 1% de todos los cánceres.
Presentación del caso: Joven de 21 años de Borama, Somalilandia/Somalia, que presentó fiebre de cinco días, junto con otros síntomas. Los antecedentes quirúrgicos revelaron una lesión tiroidea diagnosticada como sarcoma de células redondas. Las imágenes mostraron carcinoma tiroideo con metástasis.
Discusión: El aumento de la incidencia de cáncer en el África subsahariana se atribuye a factores como el aumento de la esperanza de vida y los cambios en el estilo de vida. Los desafíos en los casos raros de cáncer incluyen el diagnóstico en etapa tardía y las opciones de tratamiento limitadas. Los esfuerzos para persuadir al paciente para que reciba tratamiento están en curso.
Conclusión: Las mejoras en la infraestructura sanitaria, el acceso a los servicios de diagnóstico por imágenes y patología, junto con la sensibilidad cultural, son cruciales en el tratamiento de cánceres raros como el sarcoma de células redondas en el África subsahariana.

* Corresponding author.
E-mail address: rabiic23@amoud.edu.so (H.S.A. Elmi).

https://doi.org/10.1016/j.appr.2024.100203

Introduction

A tumor is an abnormal mass of cells in the body, which can be either benign or malignant.[1] Among cancers, breast cancer is the most frequently diagnosed in females, with 2.26 million cases, followed by lung cancer with 2.21 million cases, and prostate cancer.[2] Sarcomas, which comprise over 70 different subtypes, represent approximately 1% of all cancers. It is uncommon for any single sarcoma type to constitute a high volume of patients, even at major cancer centers.[3,4] In our case, we have encountered a rare form of sarcoma known as round cell sarcoma, which is notably infrequent in Somalia. Round cell tumors are highly aggressive malignant tumors characterized by the presence of small, identical, homogenous cells with a high nuclear–cytoplasmic ratio.[5]

Case report

History

Demographic data: A young adult, 21 years old, from Borama, the second capital city in Somaliland/Somalia.

Chief complaint: The patient presents with a fever for 5 days.

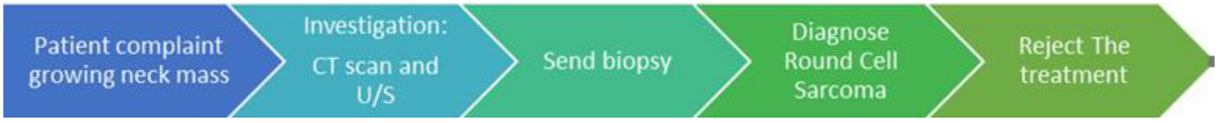
History of present illness (HPI): The patient was previously well until 1 day before admission when he developed a sudden, continuous fever that lasted for 5 days. He also reported experiencing shortness of breath, cough, chest pain, weight loss, fatigue, and night sweats. There were no associated symptoms of headache or coughing up blood.

Past surgical history: A surgical specimen received from Ethiopia indicated a thyroid lesion. Macroscopy revealed 3 fragments of tissue measuring 0.5 cm in size. A surgical procedure was performed for the thyroid lesion, confirming the diagnosis of round cell sarcoma.

Social history and family history: The patient's social and family history reveals no reported instances of cancer within the family. The patient's family resides in a rural area and is of low socioeconomic status.

Physical examination (PE): Upon physical examination, a firm, non-mobile mass is noted extending above the clavicle. The mass is non-tender, and no remarkable findings are noted on examination of the central nervous system, abdomen, respiratory, or cardiovascular systems.

Timeline



Investigations

Ultrasound: The cervical ultrasound findings indicate a 31 mm hypoechoic thyroid nodule with microcalcifications on the right, suspicious for malignancy, along with multiple echogenic lymph nodes, including non-necrotic supraclavicular lymphadenopathy. The overall impression suggests right lobe thyroid carcinoma.

CT scan: The CT scan revealed multiple right-sided cervical adenopathies in chains I, II, III, IV, and numerous scattered micronodules in both lung fields. These findings suggest a possible right-sided thyroid carcinoma with loco-regional lymph node, hepatic, and right adrenal metastases. Lymphoma is also considered, but not definitively diagnosed. There are hepatic nodules and a right adrenal nodule, raising concern for metastases as shown in Fig. 1 and Fig. 2.

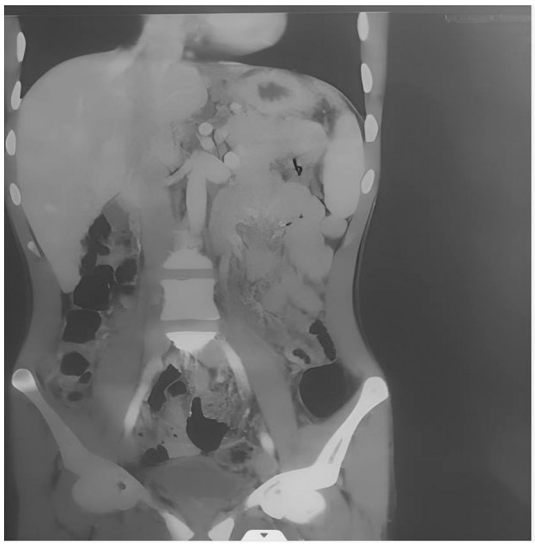


Fig. 1. Shows liver metastasis of sarcoma.

Discussion

The rising incidence of cancer in sub-Saharan African countries can be attributed to several factors, including increased life expectancy, improved treatment of infectious diseases, and lifestyle changes.[6] However, in cases such as ours, where a rare form of cancer like round cell sarcoma is involved, the challenges are particularly daunting. Sarcomas with over 70 different subtypes, yet represent approximately 1% of all cancers. it is uncommon for any single sarcoma type to constitute a high volume of patients, even at major cancer centers.[3,4]

Poor infrastructure, insufficient numbers of healthcare workers, late-stage diagnosis, reliance on traditional therapies, limited treatment options, and poor patient compliance make cancer mortality in sub-Saharan Africa high.[7] Despite these challenges, there have been notable improvements. Imaging procedures like ultrasound and CT scans, though expensive, are becoming more available in major cities, aiding in the accurate staging of cancers.[7]

In our case, obtaining a biopsy is crucial for diagnosis and treatment planning. However, most countries in the region have few pathologists, leading to delays of several months in obtaining pathological assessments.[7] To avoid such delays, we opted to send the patient to Ethiopia for biopsy and potential treatment.

The patient's decision to refuse treatment was not based on the severity of the condition but rather on personal beliefs, possibly influenced by cultural or religious factors.[8] Some studies suggest that patients diagnosed with cancer may think that this is a punishment by God or may come to lose faith.[8] Despite this, efforts are underway to persuade the patient to return for treatment, with Djibouti being considered as a viable option, given that the patient had previously fled from there.

One recommendation to address the challenges of cancer care in sub-Saharan Africa, particularly in cases involving rare cancers like round cell sarcoma, is to prioritize improvements in healthcare

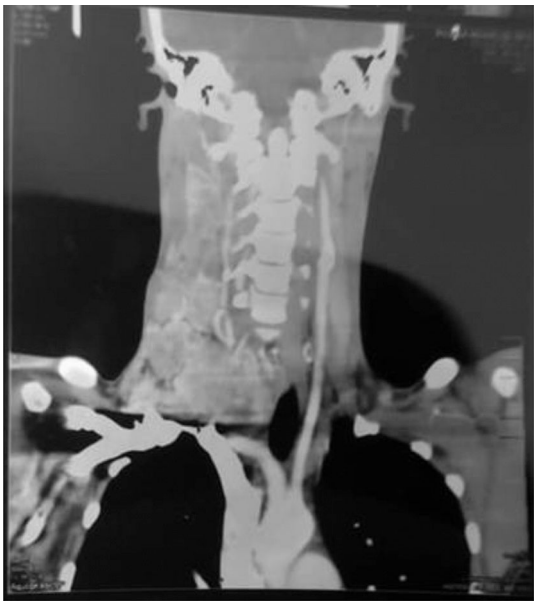


Fig. 2. Showing multiple right-sided cervical adenopathies in chains I, II, III, IV, and thyroid mass suggestive of right-sided thyroid carcinoma with loco-regional lymph node metastasis.

infrastructure, access to imaging technologies, and the availability of pathology services. Additionally, efforts should be made to understand and address cultural and religious beliefs that may impact treatment decisions. By prioritizing these areas, we can work towards reducing the burden of cancer and improving outcomes for patients in the region.

Conclusion

In conclusion, prioritizing improvements in healthcare infrastructure, access to imaging technologies, and the availability of pathology services is crucial to addressing the challenges of cancer care in sub-Saharan Africa, particularly for rare cancers like round cell sarcoma. Additionally, efforts to understand and address cultural and religious beliefs that may impact treatment decisions are essential. By focusing on these areas, we can work towards reducing the burden of cancer and improving outcomes for patients in the region.

Funding

Not applicable.

Ethical considerations

Written informed consent was obtained from the patient for publication of the article.

Declaration of competing interest

The authors declare that there are no conflicts of interest regarding the publication of this article.

Acknowledgments

We would like to thank the following individuals for their valuable insights and assistance: Hilal Jamal Abdikarim, Khalid Ali Ahmed, Mohamed Abdirizak Farah, Ayan Moumin Abdilahi, Abdifatah Abdihakim Yousuf, Abdimalek Mohamed Adam, Ahmed Adam Saed, Sumaya Mohamed Hassan, and Hussein Omer Hussein.

References

1. Professional, C. C. M. (n.d.). Malignant Neoplasm. Cleveland Clinic. https://my.clevelandclinic.org/health/diseases/22319-malignant-neoplasm.
2. Ferlay J, Colombet M, Soerjomataram I, Parkin DM, Piñeros M, Znaor A, Bray F. Cancer statistics for the year 2020: an overview. Int J Cancer. 2021;149(4):778–89. https://doi.org/10.1002/ijc.33588.
3. Bridge JA. The role of cytogenetics and molecular diagnostics in the diagnosis of soft-tissue tumors. Mod Pathol. 2014;27:S80–97. https://doi.org/10.1038/modpathol.2013.179.
4. Demetri GD, Antonia S, Benjamin RS, Bui MM, Casper ES, Conrad EU, DeLaney TF, Ganjoo KN, Heslin MJ, Hutchinson RJ, Kane JM, Letson GD, McGarry SV, O'Donnell RJ, Paz IB, Pfeifer JD, Pollock RE, Randall RL, Riedel RF, Wayne JD. Soft tissue sarcoma. J Natl Compr Canc Netw. 2010;8(6):630–74. https://doi.org/10.6004/jnccn.2010.0049.
5. Devoe K, Weidner N. Immunohistochemistry of small round-cell tumors. PubMed. 2000;17(3):216–24. https://pubmed.ncbi.nlm.nih.gov/10968707.
6. Farmer P, Frenk J, Knaul FM, Shulman LN, Alleyne GA, Armstrong L, Atun R, Blayney DW, Chen L, Feachem R, Gospodarowicz M, Gralow JR, Gupta S, Langer A, Lob-Levyt J, Neal C, Mbewu A, Mired D, Piot P, Seffrin JR. Expansion of cancer care and control in countries of low and middle income: a call to action. Lancet. 2010;376(9747):1186–93. https://doi.org/10.1016/s0140-6736(10)61152-x.
7. Kingham TP, Alatise OI, Vanderpuye V, Casper C, Abantanga FA, Kamara TB, Olopade OI, Habeebu M, Abdulkareem FB, Denny L. Treatment of cancer in sub-Saharan Africa. Lancet Oncol. 2013;14(4):e158–67. https://doi.org/10.1016/s1470-2045(12)70472-2.
8. Spirituality in Cancer Care. Cancer.gov, https://www.cancer.gov/about-cancer/coping/day-to-day/faith-and-spirituality/spirituality-pdq.