Challenging Diagnosis of Sarcomatoid Hepatic Mesothelioma: A Case Report

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INTRODUCTION

Sarcomatoid mesothelioma is a rare and aggressive subtype of mesothelioma, typically associated with exposure to asbestos. We present a unique case of a 70-year-old man in India diagnosed with sarcomatoid mesothelioma of the liver without any known exposure to asbestos. This case highlights the importance of considering sarcomatoid mesothelioma in patients with unexplained abdominal masses, even in the absence of known risk factors.

CASE DESCRIPTION

The patient presented with abdominal pain, fatigue, and weight loss. Imaging studies revealed a large, heterogeneous mass in the liver. A biopsy confirmed sarcomatoid mesothelioma, despite the absence of asbestos exposure. The patient was not a candidate for surgical resection due to the advanced stage of the disease. Palliative chemotherapy was initiated, but the patient's condition rapidly deteriorated, leading to death within a few months of diagnosis.

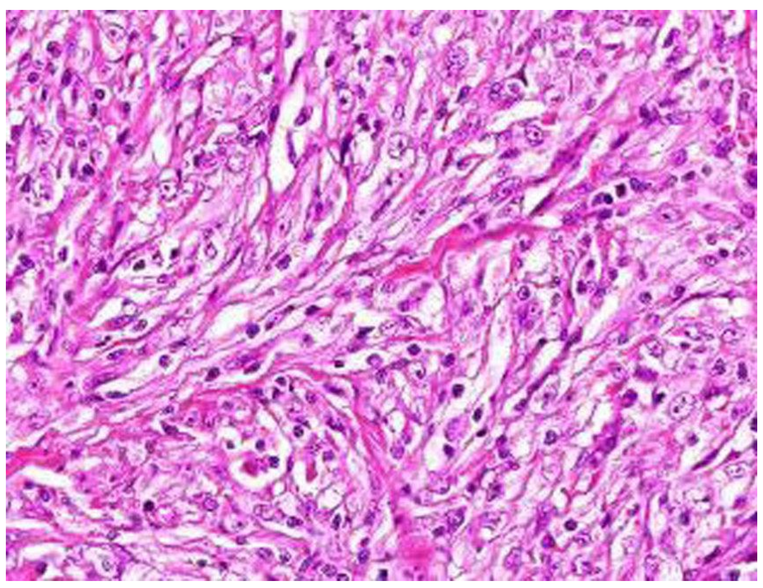

Figure 1 : Spindle cells seen on Histology feature of Sarcamatoid mesothelioma

Diagnosis and Imaging

Abdominal imaging studies, computed tomography (CT) scans and Ultrasound guided biopsy was performed

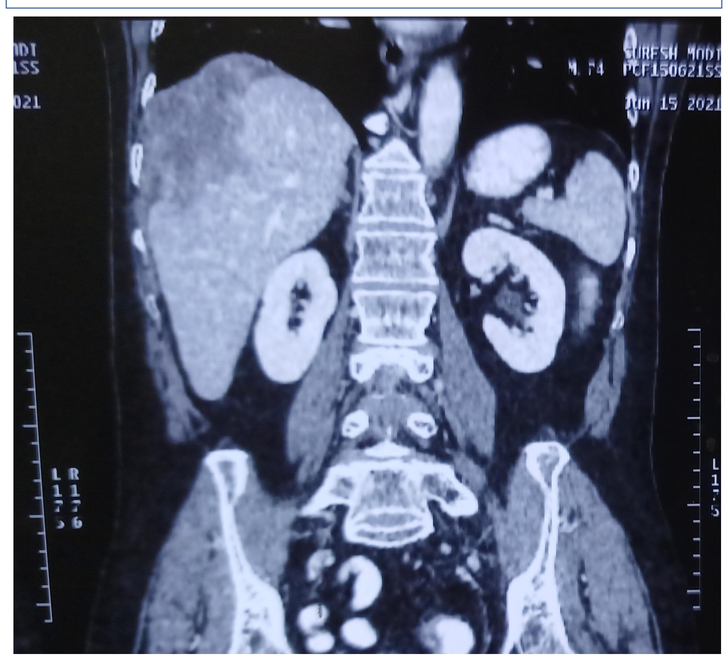

Figure 2: Computer tomography (CT) scan showing 13.6 cm x 11 cm mass in the liver with cystic lesions

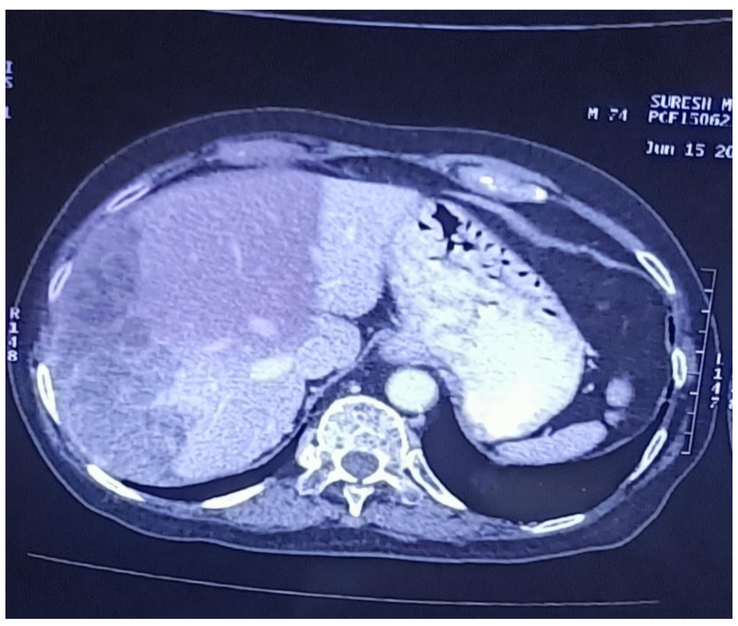

Figure 3: Transverse Computed Tomography scan. The figure shows a cross-sectional scan of the mass occupying the right lobe of the liver.

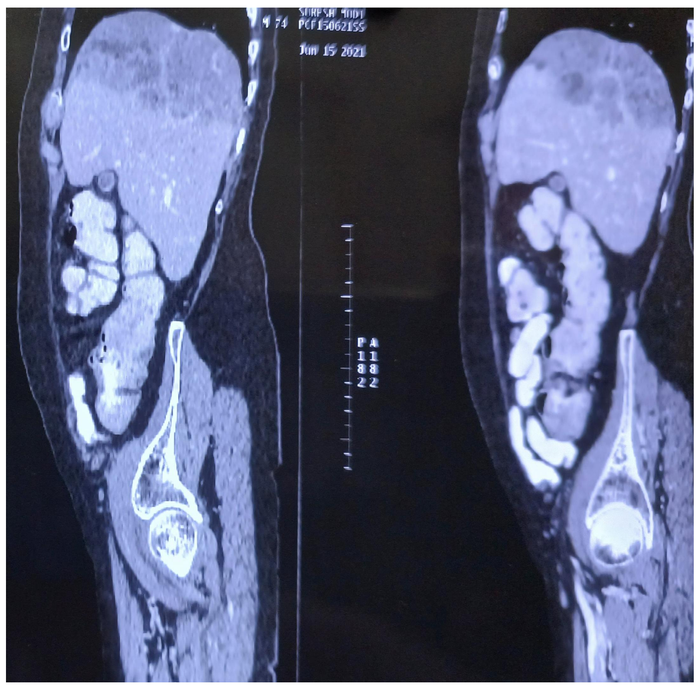

Figure 3: Lateral CT scan of the Abdomen showing mass and cystic lesions in the Liver

Discussion

Sarcomatoid mesothelioma is a rare subtype with a poor prognosis. Diagnosis can be challenging due to the similarity with other spindle cell tumors. This case adds to the limited body of knowledge on sarcomatoid mesothelioma of the liver. Molecular profiling and immunohistochemistry were crucial in confirming the diagnosis. Treatment options are limited, and further research is needed to improve therapeutic approaches for this aggressive cancer.

Management

The patient was referred to a specialized cancer center for further management. Due to the advanced stage of the disease and the large size of the tumor, surgical resection was not considered a viable option. The patient was started on palliative chemotherapy with cisplatin and pemetrexed, but his condition deteriorated rapidly, and he passed away within a few months of diagnosis.

Conclusions

This case highlights the need for increased awareness and consideration of sarcomatoid mesothelioma, even in the absence of known asbestos exposure. Molecular biomarkers and targeted therapies may hold promise for improved outcomes. Additionally, it underscores the importance of expanding research efforts in underrepresented regions, such as India, where mesothelioma cases may be underdiagnosed.

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References

1.Frontario SCN, Loveitt A, Goldenberg-Sandau A, Liu J, Roy D, Cohen LW. Primary peritoneal mesothelioma resulting in small bowel obstruction: a case report and review of literature. *Am J Case Rep*. 2015;16:496-500. doi:10.12659/AJCR.894180.
2.Jain SV, Wallen JM. Malignant mesothelioma. In: *Stat*Pearls Internet. StatPearls Publishing. updated 2022 July 4:2023 Jan-.
3.Fassina A, Cappellesso R, Guzzardo V, et al. Epithelial–mesenchymal transition in malignant mesothelioma. *Mod Pathol*. 2012;25(1):86-99. doi:10.1038/modpathol.2011.144.
4.Nakanuma Y, Sato Y, Harada K, Sasaki M, Xu J, Ikeda H. Pathological classification of intrahepatic cholangiocarcinoma based on a new concept. *World J Hepatol*. 2010;2(12):419-427. doi:10.4254/wjh.v2.i12.419.
5.Shih C-A, Ho SP, Tsay FW, Lai KH, Hsu PI. Diffuse malignant peritoneal mesothelioma. *Kaohsiung J Med Sci*. 2013;29(11):642-645. doi:10.1016/j.kjms.2013.05.003.
6.Kottke-Marchant K, Hart WR, Broughan T. *Localized fibrous Tumor (Localized fibrous Mesothelioma) of the Liver, Cancer 1 (September (5)*; 1989:1096-1102.
7.Leonardou P, Semelka RC, Kanematsu M, Braga L, Woosley JT. Primary malignant mesothelioma of the liver: MR imaging findings. *Magn Reson Imaging*. 2003;21(9):1091-1093. doi:10.1016/s0730-725x(03)00197-8.
8.Dong A, Dong H, Zuo C. Multiple primary hepatic malignant mesotheliomas mimicking cystadenocarcinomas on enhanced CT and FDG PET/CT. *Clin Nucl Med*. 2014;39(7):619-622. doi:10.1097/RLU.0b013e31828da61d.
9.Sasaki M, Araki I, Yasui T, et al. Primary localized malignant biphasic mesothelioma of the liver in a patient with asbestosis. *World J Gastroenterol*. 2009;7(5) (February (5)):615-621. doi:10.3748/wjg.15.615.
10.Kim DS, Lee SG, Jun SY, Kim KW, Ha TY, Kim KK. Primary malignant mesothelioma developed in liver, Hepatogastroenterology. 2007;55 (December (84)):1081-1084.