

A Rare Case of Spindle Cell Carcinoma of the Hepatobiliary System

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Introduction

- Spindle cell carcinoma, also called sarcomatoid carcinoma, is a rare & uncommon tumor with heterogenous characteristics with wide variety of pathological appearances
- In practice, it is hard to differentiate these subtypes since most of them possess a spindle element.
- Sarcomatoid carcinoma is said to roughly 2% of reported clinical cases.

Case Description

- A 50-year-old male with a Past medical history of Hypertension, Hepatitis C, & External Hemorrhoids, who presented to our tertiary care center with a worsening abdominal pain, intractable nausea, & vomiting after recently being diagnosed with spindle cell carcinoma of the liver, 1-month prior to presentation
- Gastroenterology was consulted and performed an EGD.
- Evaluation of the stomach into the antrum, a large perforated ulcer was identified with omental tissue. Additionally, liver parenchyma was visualized along with severe LA Grade D Esophagitis throughout the entire esophagus
- General Surgery was emergently consulted and was deemed inoperable.
- Palliative care was consulted and patient was transferred to Hospice.

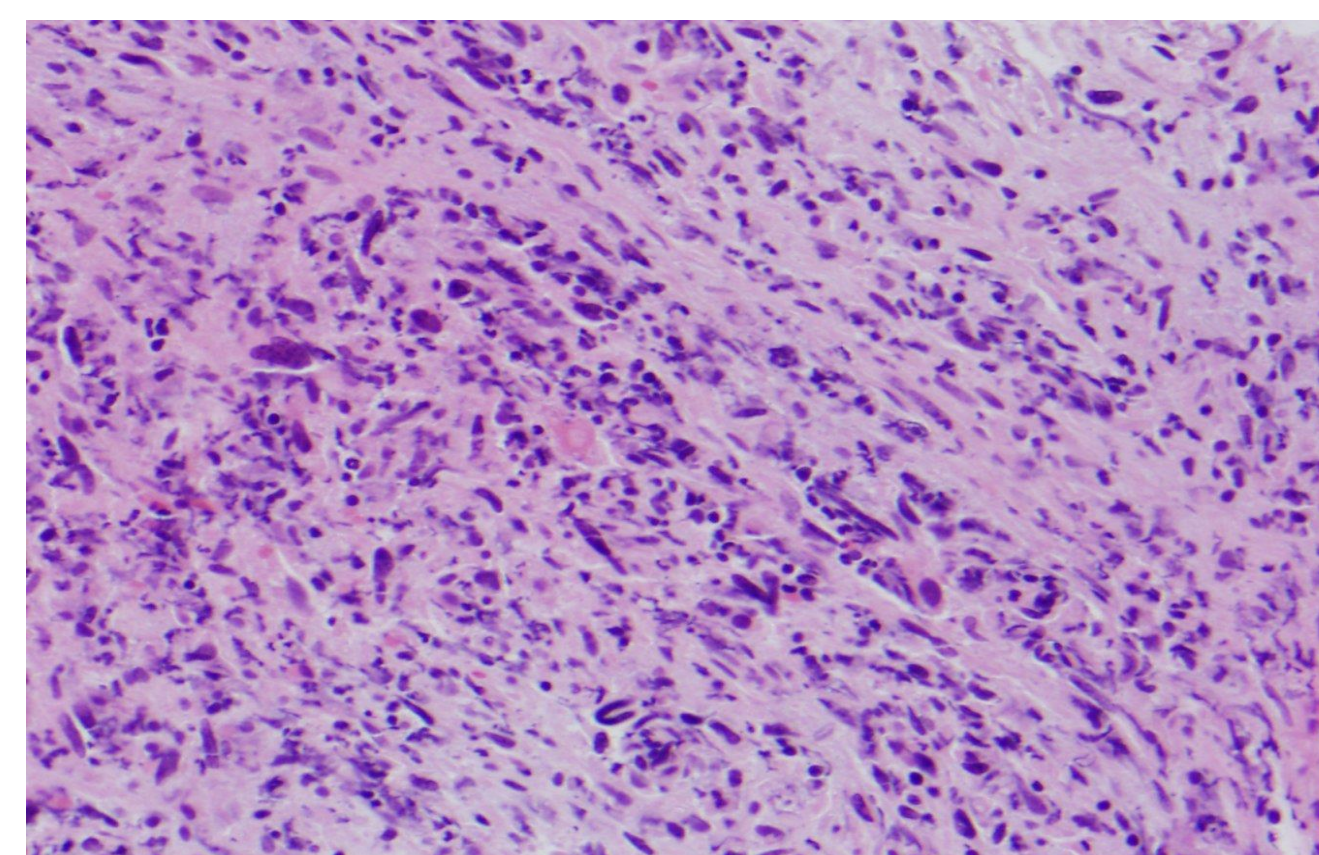
Case Description Cont..



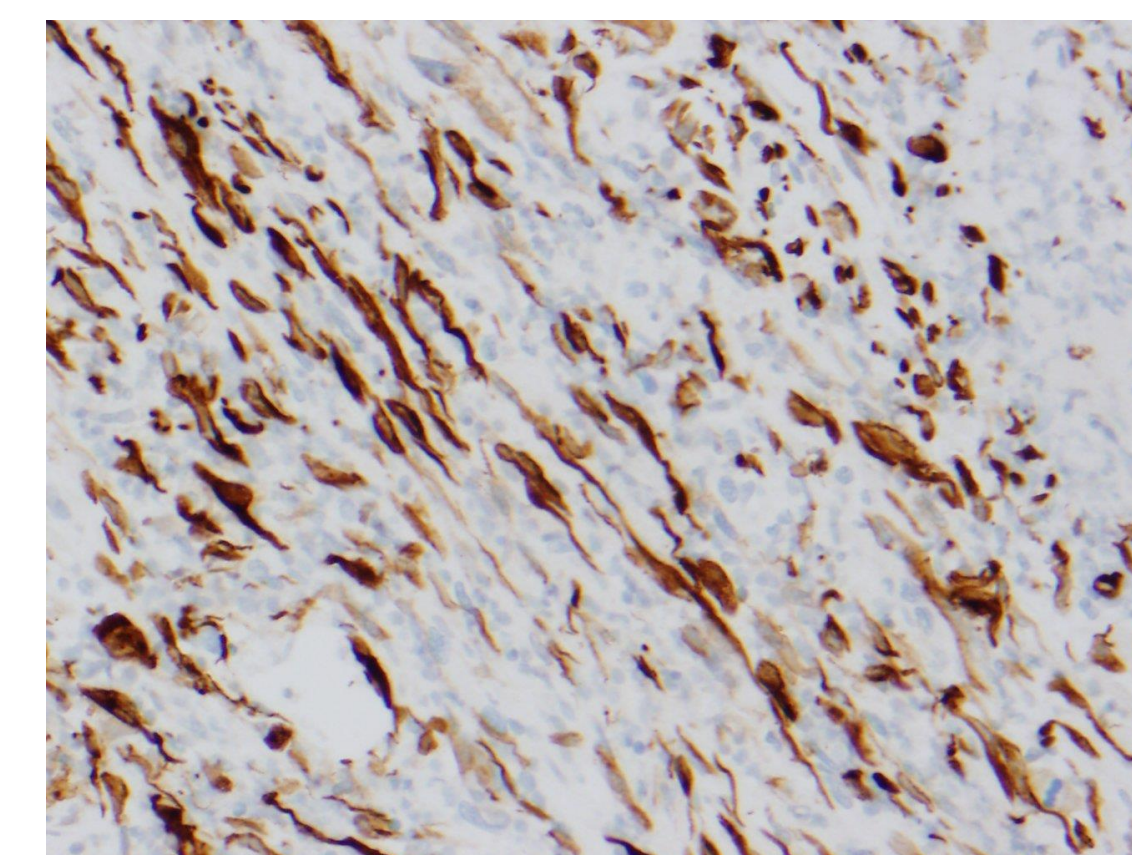
A large perforated ulcer noted with omental tissue and liver parenchymal visualized



Numerous multiloculated multi-septated central hypodense bilobar observations demonstrating delayed peripheral enhancement. The largest mass in hepatic segment 2/3 measures 13 x 11 cm.



H and E stain showing tumor composed of spindle cells arranged in interlacing bundles with oval vesicular nuclei and indistinct nucleoli



High power view of spindle cell tumor showing many mitotic figures

Discussion

- This is a unique case of advanced stage spindle cell carcinoma coupled with a challenging diagnosis for a for an immediate treatment.
- According to our review of the literature, the general nature of these tumors is associated with destructive biological behavior and has a poor prognosis compared to most common variants of Spindle cell cancer.
- Surgery is the typical mainstay for a resectable carcinoma which was not option here given the advanced stage of his malignancy. Chemotherapy/radiation can be included for adjunctive therapy or even used alone, which was briefly pursued in this case.
- Additionally, it was identified that the average post-operative survival interval was about 6 months with the longest living patient having survived for only 15 months.
- In conclusion, due to the rare location of this disease, many more investigations on Spindle cell cancers will be necessary to improve the prompter diagnosis and management of these tumors including establish a primary modality of treatment.

References

1. Suurmeijer AJH, Dickson BC, Swanson D, Zhang L, Sung YS, Cotzia P, et al. A novel group of spindle cell tumors defined by S100 and CD34 co-expression shows recurrent fusions involving RAF1, BRAF, and NTRK1/2 genes. *Genes Chromosomes Cancer*. (2018) 57:611–21. doi: 10.1002/gcc.226713
2. Ellis GL, Langloss JM, Heffner DK, Hyams VJ. Spindle-cell carcinoma of the aerodigestive tract. An immunohistochemical analysis of 21 cases. *Am J Surg Pathol*. (1987) 11:335–42. doi: 10.1097/00000478-198705000-00001
3. Fisher C. Immunohistochemistry in diagnosis of soft tissue tumours. *Histopathology*. (2011) 58:1001–12. doi: 10.1111/j.1365-2559.2010.03707.x
4. Feng L, Cai D, Muhetaer A, Yang YL, Ren F, Yishake M, Zhang H, Fang Y, Wushou A. Spindle cell carcinoma: the general demographics, basic clinicopathologic characteristics, treatment, outcome and prognostic factors. *Oncotarget*. 2017 Jun 27;8(26):43228-43236. doi: 10.18632/oncotarget.18017. PMID: 28591732; PMCID: PMC5522141.