When Cancers Collide - Unveiling Cholangiocarcinoma and Hepatocellular Carcinoma in an Astonishing Collision Carcinoma Case Report

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Introduction

Collision carcinoma, an exceedingly rare occurrence, involves the simultaneous presence of two distinct malignant tumors within the same organ. In this case report, we present a unique case of cholangiocarcinoma (CCA) and hepatocellular carcinoma (HCC).

HCC has an incidence of 4.8 per 100,000 [5]. CCA accounts for only about 3% of all gastrointestinal tumors, with a 5 year survival rate of 10% [3].

In a patient with a primary hepatic malignancy, the incidence of CCA-HCC was found to be only 1.3%. The exceedingly rare occurrence, makes diagnosis, treatment and management a challenge to the medical community.

In this case study, we present a unique diagnosis of cholangiocarcinoma and hepatocellular carcinoma, discussing the challenges in diagnosis and management, treatment approaches, and response to therapy.

Case Presentation

71-year-old Caucasian female with past medical history of chronic back pain presented with nonspecific symptoms of fatigue and abdominal pain.

Physical examination was remarkable for right upper quadrant tenderness.

Routine laboratory tests were notable for an elevated alkaline phosphatase.

Alpha-fetoprotein and CA 19-9 levels were noted to be approximately 520 ng/mL and 230 U/mL, respectively.

Diagnosis

A CT scan of the abdomen revealed multiple hepatic masses.

A follow-up MRI revealed a dominant mass measuring 14x8x12cm within the central liver.



Figure 1. MRI Abdomen showing a dominant mass within the central liver.

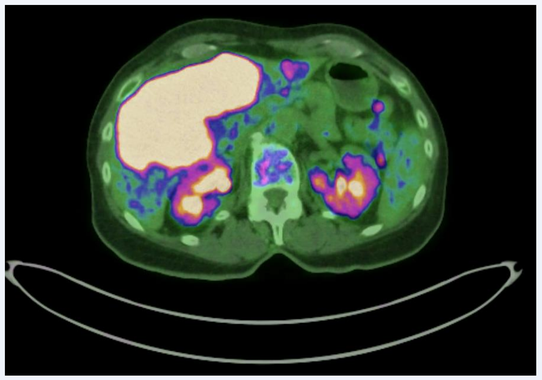


Figure 2. PET scan showing a hypermetabolic mass within the central liver and multifocal hepatic metastatic disease within the right and left lobes of the liver.

Ultrasound guided biopsy was performed and histopathological analysis established the presence of both HCC and CCA in separate tumor nodules. This was confirmed by the positive staining for tumor markers; ck7, satb2, and ca19-9, and a negative staining for ck20, ttf1, napsin, and gata3.

Treatment and Management

The patient was started on a regimen of Cisplatin, Gemcitabine, and Abraxane.

The patient responded exceptionally well to treatment, as evidenced by radiological imaging and tumor marker levels. Alpha-fetoprotein and CA 19-9 levels dropped to normal values within five months. The size of the dominant lesion decreased to 6.5 cm transversely.

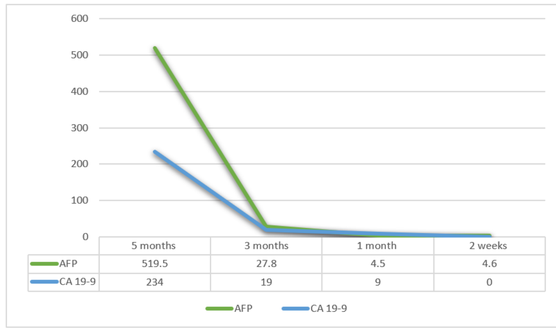


Figure 3. Reduction in AFP and CA 19-9 levels post chemotherapy administration.



Image 4. CT Abdomen showing a reduced mass within the central liver.

This encouraging response opened up the potential for a surgical intervention which was previously deemed unattainable.

Discussion

This case report underscores the significance of recognizing collision carcinomas and highlights the complexities associated with their diagnosis and treatment. We shed light on a potential therapeutic regimen for coexisting cholangiocarcinoma and hepatocellular carcinoma. Accurate histopathological examination and molecular profiling play a crucial role in diagnosing these complex malignancies.

The patient's encouraging response to chemotherapy proves that tailored treatment approaches show promising outcomes in managing these complex malignancies. The planned surgical resection holds promise for further disease control and improved long-term outcomes.

Further studies are needed to explore the underlying mechanisms of tumor coexistence and to optimize therapeutic approaches. This case suggests that tailored treatment approaches show promising outcomes, necessitating collaborative efforts and further research to improve patient care.

References

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