Primary Squamous Cell Carcinoma of the Liver: Unusual Clinical Presentation with Cavitary Lesion

Karaciğerin Primer Yassı Hücreli Karsinomu: Kaviter Lezyonile Prezentasyon

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Abstract

We report a rare case of primary carcinoma of the liver that presented withcavitary lesion in liver. 68 year-old woman was hospitalized with diagnosis of liver abscess, but histological examinationwas compatible with squamous cell carcinoma. Detailed radiological and clinical evaluation failed to reveal occult primary. Because patients' clinical signs, symptoms and laboratory values supportsevere sepsis syndrome, systemic chemotherapy was deferred. Though the case was treated with broad spectrum antibiotics and cavitary lesions were drained by intervention, the patient's condition deteriorated and we lost the case at the 20th day of admission.

In conclusion, cavitation of tumor can be sign of highly aggressive biological behavior and poor prognosis,early diagnosis, surgical resectionand starting effective chemotherapyin patients those who have good performance scoremay be equally important as supportive care.

Keywords: Liver, Squamous Cell Carcinoma, Cavitary lesion, Chemotherapy, Sepsis

Özet

Karaciğerde kaviter lezyon ile prezente olan nadir bir karsinom vakası sunulmaktadır. 68 yaşında bayan hasta karaciğer apsesi ön tanısı ile yatırılmış fakat histolojik inceleme yassı hücreli karsinomu ile uyumlu bulunmuştur. Ayrıntılı radyolojik ve klinik değerlendirmede primer lezyon bulunamamıştır. Hastanın semptom ve belirtilerin, laboratuvar değerlerinin sepsis sendromunu desteklemesi nedeniyle sistemik kemoterapi ertelenmiştir. Kaviter lezyonun girişim ile boşaltılmasına ve geniş spektrumlu antibiyotik kullanılmasına rağmen hastanın genel performansı giderek kötüleşmiş ve yatışının yirminci günüde kaybedilmiştir.

Sonuç olarak, kanser hastalarında kavitasyon ile prezentasyon kötü prognozla ve saldırgan biyolojik davranış ile ilişkili olabilir. Özellikle performansı iyi olan hastalarda erken tanı, cerrahi tedavi ve etkili kemoterapi ajanlarının başlanması en iyi destek tedavisi kadar etkili olabilir.

Anahtar Kelimeler: Karaciğer, Yassı Hücreli Karsinom, Kaviter Lezyon, Kemoterapi, Sepsis

Introduction

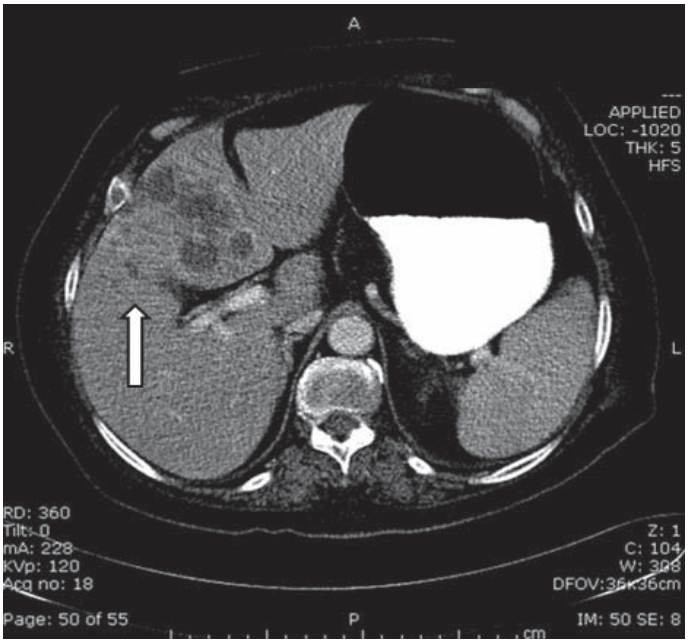
Cavitation of tumor is well known characteristic finding of the squamous cell carcinoma (SCC) of the lung, though it is also reported in other tumor types. Pathophysiological mechanisms behind tumor cavitation and its clinical importance are not fully established. One retrospective study that search for possible interaction between tumor cavitation and tumor characteristics such as age, smoking, interval to diagnosis, fever at diagnosis was failed to show significant interaction.1Whereas another study showed that tumor cavitation significantly related with shorter overall survival (OS) and disease free survival (DFS).2

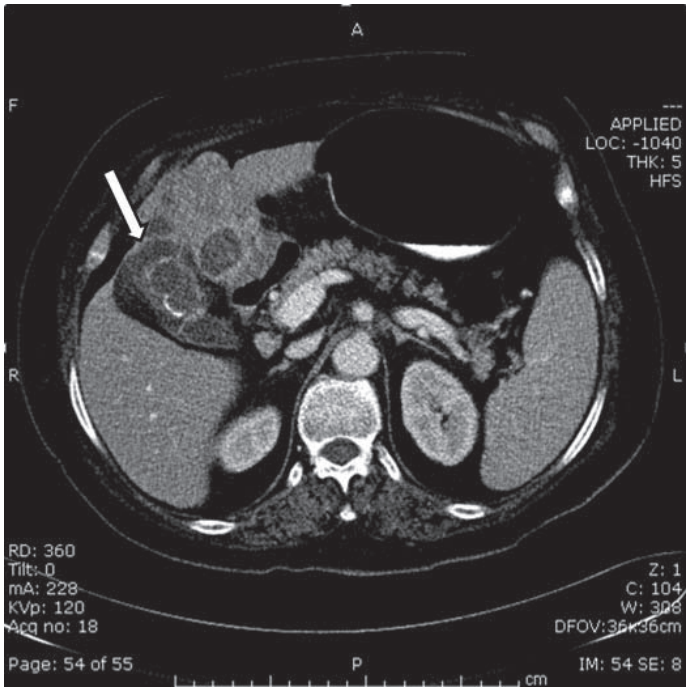
To the best of our knowledge, there is few cases presented with cavitary lesion in liver, and had a final diagnosis of primary liver SCC in literature. So we would like to report such case and discuss its clinical importance.

Case Report

A 68 year-old woman presented with the complaints of rapidly progressive fatigue weight loss and high fever. Her past medical history was unremarkable except for well controlled hypertension. She was hospitalized by the diagnosis of fever of unknown origin. Physical examination was noted as normal except she had high fever and tachycardia. Urine and blood culture was negative, abdominal CT scan revealed 6 cm x 6.5 cm sized abscess formation in the segment 4-5 of the liver. Liver abscess was drained by tube drainage. Cytological examination was compatible by the pyogenic abscess, whereas microbiological evaluation failed to reveal offending organism. Empiric antibiotic treatment was started. Though liver abscess was drained successfully and antibiotic treatment was started, patient's general condition was gradually worsened. So the case was referred to our centre for further evaluation. On admission, she had a fever, hypotension, resting hypoxemia, and tachycardia. General condition was very poor and physical examination revealed tenderness over the RUQ of the abdomen. Abdominal CT scan with contrast revealed a 8cm x 6.5 cmcavitary, multilobulated, hypodense, ring-like contrast enhancement irregular mass occupying segment 4-5 of liver mimicking abscess formation and irregular contour in the gallbladder fundus (figure 1-2).

Figure 1-2: Contrast enhancement CT shows irregular contour of gallbladder fundus, and multilobulated-cavitary abscess like ring enhancing mass lesion in the segment 4-5 of liver near the gallbladder.





Culture from aspiration was negative. Pathological examination of the biopsy from edge of the cavitary lesion was compatible with squamous cell carcinoma. Detailed physical and radiological evaluation for occult primary was negative. So the patients' final diagnosis was most probably primary squamous cell carcinoma (SCC) of the liver. The lesions were accepted as unresectable. Though interventional radiology department had tried tube drainage for multiple times, we lost the case on the 20th day of admission.

Discussion

Majority of the liver tumors are hepatocellular carcinoma develops in the setting of viral hepatitis induced chronic liver disease. The median overall survival is approximately 6 to 20 months.3Primary SCC of the liver is a very rare and highly fatal malignancy.4Complete surgical resection is only curative treatment modality whereas chemotherapy and radiotherapy could yield survival benefit with palliative intend and reported in a few cases.4But eventually most of the patients die from disease progression. Our case had stage IV disease, so poor outcome and short survival is to be expected. But what is unexpected that unusual initial presentation with cavitary lesion and subsequent infectious complication leading to patients' death.

Cavitation of the tumor is reported mostly in primary SCC of the lung with prevalence between two and twenty-five percent.1,5Which tumors and why they show strong tendency to cavitation has not been fully established. But common belief is that rapid tumor growth that interferes

with blood supply and subsequent central necrosis could be responsible from development of cavitary lesion.6 In other word, cavitation in tumor may be strong sign of the aggressive biological behavior. Amir et al. investigated rate of the cavitary lesions in stage I NSCLC and its possible interaction with EGFR expression and patient prognosis.2 In this retrospective study, cavitary lesions were significantly more common in SCC than adenocarcinomas (p=0.013) and in EGFR-over-expressing tumors (p=0.012) than in tumors that did not over-express EGFR. Also they noted that cavitary lesions were significantly associated with shorter DFS (p=0.01) and shorter overall survival (p<0.007).2 With this study, Amir et al. strongly suggested that tumor cavitation may be a predictor of poor outcome in SCC. If we could make analogy from SCC of the lung, also cavitation in this very rare tumor may be suggested as negative prognostic factor.

There is no reference chemotherapy regimen for patients with primary SCC of the liver. Therefore, radiotherapy or chemotherapy had been tried and reported in literature as a case report with relatively good survival.4

In conclusion, Primary SCC of the liver presented with cavitary lesion has very poor prognosis, early diagnosis, curative surgical resection and if patient has good performance chemotherapy and radiotherapy may guarantee that the patient would gain optimal benefit from current treatment options.

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