

Case Report

Eradication of Bilateral, Multifocal HCC Following Sorafenib Therapy in a Patient with Hepatic Exotoxic Cirrhosis: A Case Report

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Abstract

An 81 years old male patient, previously treated with multiple TACE sessions for a multifocal, bilateral hepatocellular carcinoma subsequent to hepatic exotoxic cirrhosis, was a candidate to Sorafenib due to the lack of surgical and further transcatheter therapies indications. The dosage of Sorafenib was soon reduced, as the patient showed a clear increase of arterial pressure values after the first days of use. Nevertheless, after four months of therapy, an impressive reduction of AFP was evident, along with a major reduction of the neoplastic masses at the subsequent imaging investigations. The case was again discussed at the Hepatic Multidisciplinary Meeting and the patients were subjected to two laparotomic atypical liver resections and three microwave ablations for the residual suspect areas. The final histologic examination showed a complete pathological response.

Keywords: Hepatocellular carcinoma; Transcatheter arterial chemoembolization; Sorafenib; Microwave tumor ablation; Hepatic surgery

Abbreviations

HCC: Hepatocellular Carcinoma; TACE: Transcatheter Arterial Chemoembolization; AFP: Alpha Fetoprotein; n.v.: Normal Values; CT scan: Computed Tomography Scan; LS: Liver Segment; BCLC: Barcelona Clinic Liver Cancer

Introduction

A male, 81 years old patient was submitted to multiple sessions of TACE in August, September and December 2019 for a multifocal, bilateral HCC. As the effects of these treatments were limited, further attempts were excluded at the following medical visits and, after a surgical evaluation, surgical treatments were simultaneously ruled out. Both radiological and laboratory tests confirmed the presence of rapidly growing hepatic masses, with the bigger nodules located at the fourth hepatic segment (54 mm in S4) and between the fifth and the eighth segments (40 mm in S5-8). The patient had a history of hepatic exotoxic cirrhosis, developed in the last years; he also reported previous prostatic surgery for benign disease. The patient was hence a candidate for systemic treatment with Sorafenib.

Materials and Methods

In April 2021, the patient showed a consistently elevated AFP (2557 ng/mL, n.v. 0-7), with slightly elevated Glutamic-Oxalacetic Transaminase (GOT=96 U/L, n.v.4-40) and Glutamic Pyruvic Transaminase (GPT=67 U/L, n.v. 4-41), normal Total Bilirubin (1.1 mg/dL, n.v. 0-1.4), Na (139 mEq/L, n.v. 136-145), INR (1.16), Hemoglobin (132 g/L, n.v. 140-180), Albumin (4.4 g/dL, n.v. 3.5-5.2) and Creatinine (0.76 mg/dL, n.v. 0.67-1.17) and slightly reduced Platelets ($117 \times 10^9/L$, n.v. 140-440). Child-Pugh class was A5; MELD-Na score was 9. General clinical conditions were optimal, as the patient was completely asymptomatic, with an elevated Performance Status, normal cardiopulmonary parameters and 71 kg of weight; for these reasons, systemic treatment with Sorafenib was started at the dosage of 400 mg twice a day. In May 2021, after the first week of treatment, the patient was re-evaluated and, due to a significant elevation of diastolic blood pressure (with median values around 90 mmHg), the dosage was reduced to 200 mg twice a day.

Results

At the following visits, laboratory tests showed an impressive, progressive reduction of AFP, with normal levels finally detected in September 2021 (2 ng/mL); the other serum parameters remained stable. A new CT scan was prescribed to assess the hepatic disease status. The exam showed a clear reduction of the hepatic nodules in both number and dimensions, with the bigger mass measuring 49 mm in maximum diameter in S4 endowed with a central dominant necrotic area. Ascitic fluid was detected in the perihepatic area, so diuretic therapy was started. A magnetic resonance was then performed, confirming the remarkable reduction of the hepatic disease burden, with two spots of persistent disease in S4 (17 and 20 mm, respectively) and a 30 mm nodule in S5-8. The case was then evaluated at the Hepatic Multidisciplinary Meeting (November 2021) and surgical treatment of the remaining neoplastic areas was

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indicated. Preoperative esophagogastroduodenoscopy confirmed the presence of limited esophageal varices (F1 CwLi CRS-, RWM-) and mild gastropathy, while anemia was detected in December (Hb 84 g/L) and required blood transfusions to restore normal values; albumin was normal thanks to weekly infusions. A further CT scan (December 2021) confirmed the disease remission. At the end of December, the patient was admitted to the Surgery Department and underwent laparotomic atypical liver resection of suspect nodules in S3 and S4, in addition to microwave ablations in S5-8, S4 and S5-6 and cholecystectomy; intervention was guided by ultrasound use. Postoperative course was characterized by abundant drainage ascitic tribute, treated with diuretics, and the patient was finally discharged in 7th postoperative day. Multiple CT scans and laboratory tests were required in 2022; 10 months after surgery, no signals of disease recurrence were detected and Sorafenib administration was finally discontinued [1-3] (Figure 1 and 2).

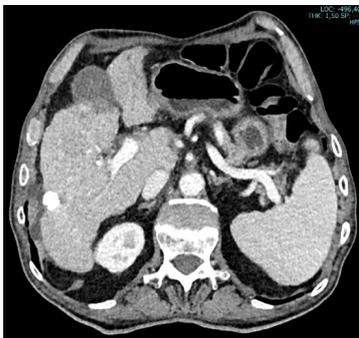


Figure 1: Preoperative CT scan.

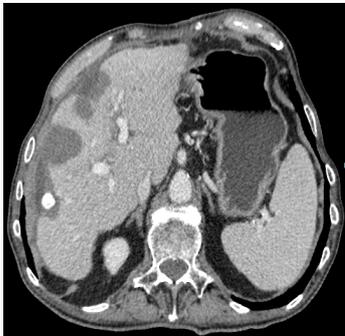


Figure 2: Postoperative CT scan.

Discussion

Liver cancer is one of the most common malignancies worldwide, with approximately 840000 new cases and 780000 deaths in 2018; the majority of primary liver cancers (75%-85%) are HCC. Therapeutic strategy for HCC can be chosen according to BCLC staging system and Child-Pugh cirrhosis classification, depending on disease burden presentation and underlying hepatic function; although locoregional therapies are usually considered first, up to two-thirds of patients may become ineligible due to tumor burden or liver decompensation. For BCLC stage C, Sorafenib (Nexavar), a multikinase inhibitor capable of facilitating apoptosis, mitigating angiogenesis and suppressing tumor cell proliferation, can be administered. In this specific case, even in presence of an advanced, progressing disease, and despite patient's age, elevated initial AFP levels and worsening disease while treated with TACE, response was outstanding and following investigations confirmed the robust achievement after almost a year after surgery.

Conclusion

Nowadays, a broad spectrum of systemic treatments for HCC have been tested, with good results in terms of overall and disease-free survival for both targeted therapies and immunotherapies (ramucirumab, cabozantinib, immune checkpoint inhibitors...). Despite this, Sorafenib still remains a gold quality standard in the first line treatment of advanced HCC patients, and remarkable results can be obtained in the most advanced hepatic scenarios.

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