LETTERS TO THE EDITORS

Letter: innovative use of the alfapump system to treat a small hepatocellular carcinoma

EDITORS,

We read with great interest the prospective multicenter observational study by Stirnimann et al who reported the safety and efficacy of the alfapump (AP) system in 56 patients with refractory ascites (RA), including 55.3% of patients aged over 60 years and patients with decompensated cirrhosis (Child-Pugh score C or MELD >12). Their results confirm that AP may offer an alternative to large volume paracentesis (LVP) for patients with RA disqualified from transjugular intrahepatic portosystemic stent shunting (TIPSS) or liver transplantation (LT). We wish to highlight another original use of the AP system in the light of a recent case that we managed.

We evaluated an active 72-year-old woman suffering from RA further to alcoholic cirrhosis for LT. Since September 2016 (date she stopped drinking), two LVP per month were performed to alleviate abdominal discomfort. Our team disqualified this woman for LT and TIPSS mainly due to her age and previous episodes of hepatic encephalopathy, and AP was considered. A typical solitary hepatocellular carcinoma (HCC with a wash-in in the arterial phase and a wash-out in the portal phase) measuring 23 × 25 mm in the hepatic dome was diagnosed in April 2017. Serum biological tests just before AP implantation were as follows: alfa-fetoprotein was normal, creatinine 100 μmol/L, platelet count 147 000/μL, prothrombin time 47%, total bilirubin 38 μmol/L and albumin 21 g/L (Child-Pugh score was 10). AP was successfully implanted on 2 June 2017 without complications, except for macroscopic hematuria resolved by saline bladder irrigation. Radiofrequency ablation (RFA with a Covidien cool-tip electrode RFA1530, exposure 30 mm) of HCC was performed under general anesthesia without complication on 26 June 2017. The efficacy of RFA was confirmed by dynamic CT scan 1 month later, and the patient remains in good health until November 2017.

RFA is considered as an effective technique for the treatment of unresectable HCC and is associated with low mortality (0.15%) and morbidity under the conditions of strict safety rules in patients without ascites. We recognize that any intervention (resection, transcatheter arterial chemoembolization and RFA) on decompensated cirrhotic patients contraindicated for LT (as in our case) may precipitate the course of those patients. However, a study demonstrated the feasibility and relative safety of RFA for HCC in 19 cirrhotic patients with ascites (16 Child-Pugh B and 3 C). Our patient surely goes beyond the standard indication for RFA of small HCC. However, with the improvement in interventional radiology techniques and increased expertise in the management of severe cirrhotic patients, we estimate that guidelines are not set in stone and may sometimes be disregarded, on a case-by-case basis.

We demonstrate herein that the treatment of small HCC by RFA in patients with large ascites is feasible by removing ascites using the AP system, although AP is not currently labeled for this particular use and is still investigational for the treatment of RA. We hope that clinicians with expertise in the use of the AP system will report their experience and their unusual cases, to enable evaluation of the feasibility of this innovative device, and of the clinical benefit for the patient.

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AUTHORSHIP

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LINKED CONTENT

This article is linked to Stirnimann et al and Stirnimann and De Gotardi papers. To view these articles visit https://doi.org.10.1111/apt.14331 and https://doi.org.10.1111/apt.14500.

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EDITORS,

In their letter to the Editors, Weil et al report on a patient with hepatocellular carcinoma (HCC) and refractory ascites.\(^1\) Since the patient was not eligible for liver transplantation and had a contraindication for Transjugular Intrahepatic Portosystemic Shunt (TIPSS), implantation of an alfapump (AP; Sequana Medical AG, Zurich, Switzerland) was performed to control ascites and to enable radio frequency ablation (RFA) of the HCC.\(^2\) Less than 1 month after the implantation of the AP, the HCC lesion was successfully treated by RFA and further evolution of the patient was favourable.

To date, the clinical experience in the treatment of refractory ascites with the AP in patients with cancer is still very limited. It is important to differentiate patients with advanced chronic liver disease and HCC from patients with malignant ascites without underlying chronic liver disease.

In our centre, we treated a patient with refractory ascites due to alcoholic liver cirrhosis. Three HCC suspicious lesions were treated with transarterial embolization and 3 months later, an alfapump was implanted for refractory ascites. Subsequently, several more lesions were treated with microwave ablation (MWA), a thermal ablation therapy using frequencies \(\geq 900\) kHz.\(^3\) The patient is currently in a good clinical condition and ascites is very well controlled 1 year after the implantation of the AP.

In patients with malignant ascites, improvement of quality of life is a priority. It is therefore crucial to select patients, who can take a real benefit from the AP, based on their expected survival and their symptoms. The anticipated survival time should be at least 3 months to have an acceptable risk benefit balance. In patients with less survival time, a percutaneous drainage might be a better solution to relieve ascites related symptoms.

Due to the so far limited experience, we recommend to restrict treatment with AP in patients with liver cancer or malignant ascites to experienced centres. Besides the surgical intervention, management prior to and after the implantation of the pump is important. General recommendations for the treatment with AP in cirrhotic patients should also be considered in patients with HCC or cancer of other origin.\(^4\) A close collaboration between the surgical team and the treating physicians is paramount for the successful treatment with AP.

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REFERENCES

1. Weil D, Christmann P-Y, Sailley N, Thévenot T. Letter: innovative use of the alfapump system to treat small hepatocellular carcinoma. \(\textit{Aliment Pharmacol Ther}\). 2018;47:695-696.