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Open wound and cutaneous fistulization after microwave ablation of hepatocarcinoma

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CASE REPORT:

A 64-year-old male with a history of HBV Child A MELD 9 cirrhosis on treatment with oral entecavir 0.5 mg/day. Diagnosed with 2 cm hepatocarcinoma in segment 6 treated by radiofrequency in April 2016 with complete response until June 2021, when an increase in the size of the solid component of the treated lesion (28 x 20 mm in diameter) was detected with early enhancement after the administration of paramagnetic contrast, suggestive of local tumor recurrence. After presenting to the multidisciplinary committee, microwave ablation of the tumor lesion was performed in October 2021, for which three 17 G microwave antennas were placed. Its correct placement was verified by XperCT and the lesion was ablated for 10 minutes at 90 W (30 W each antenna) with subsequent ablation of the tract. After the procedure, there was no uptake of the tumor lesion with perilesional hyperemia, and a control CT scan was scheduled a month later. Ten days after the procedure, he was hospitalized due to the appearance of an open suppurative wound in the right subcostal region (access area for percutaneous ablation), with no associated fever (Figure 1A). An abdominopelvic CT scan was performed with the findings described in Figure 2B. Given the clinical and radiological findings, the patient was hospitalized. In the bacteriological

culture of the purulent exudate, Escherichia coli was isolated (treated by oral antibiotic therapy with ciprofloxacin 500 mg/12 hours for 7 days) and local cures were performed with physiological saline solution and chlorhexidine with decreased wound drainage. Nine days after discharge, negative pressure therapy was placed using VAC (Vacuum Assisted Closure) system at 80 mmHg pressure for 7 weeks with good progress after removal (Figure 1C).

Microwave ablation is a percutaneous thermal treatment that creates an electromagnetic field around a monopolar electrode, inducing homogeneous heating and coagulative tissue necrosis. It allows treating several lesions simultaneously and in less time than radiofrequency ablation with low morbidity and mortality. The incidence of adverse events ranges between 2.6% and 7.5%. The most frequent complications are bleeding and hematoma. Ablation tract fistulization is an infrequent complication, with a higher risk of appearing in subcapsular or peripheral hepatic lesions, as was the case in our patient.

Conflicts of interest: There are no conflicts of interest.

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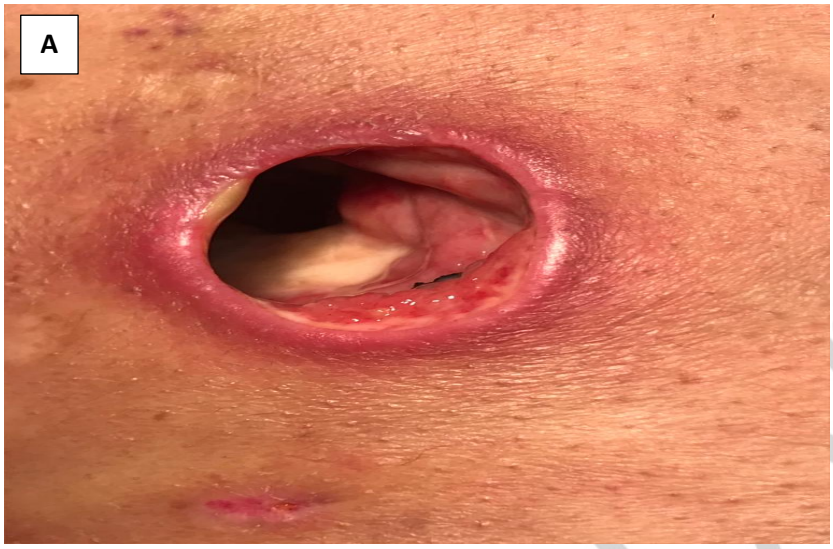

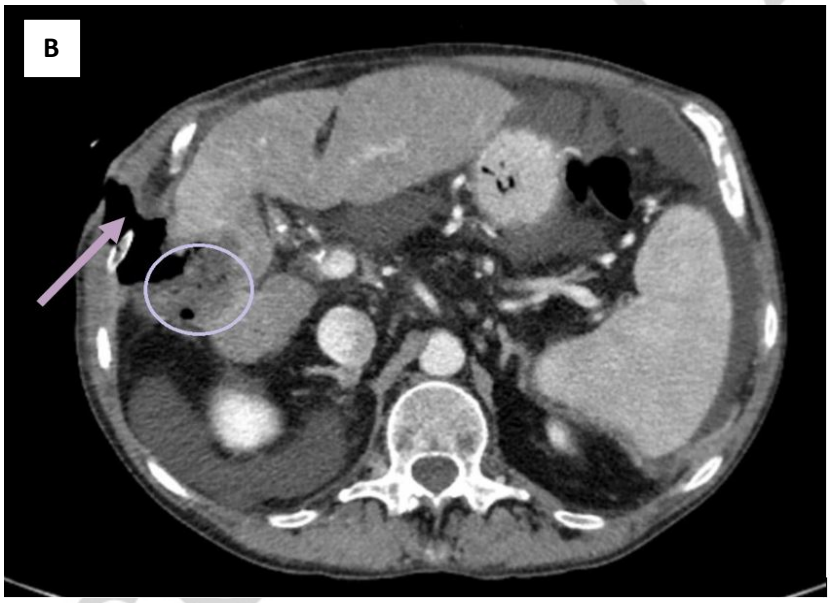

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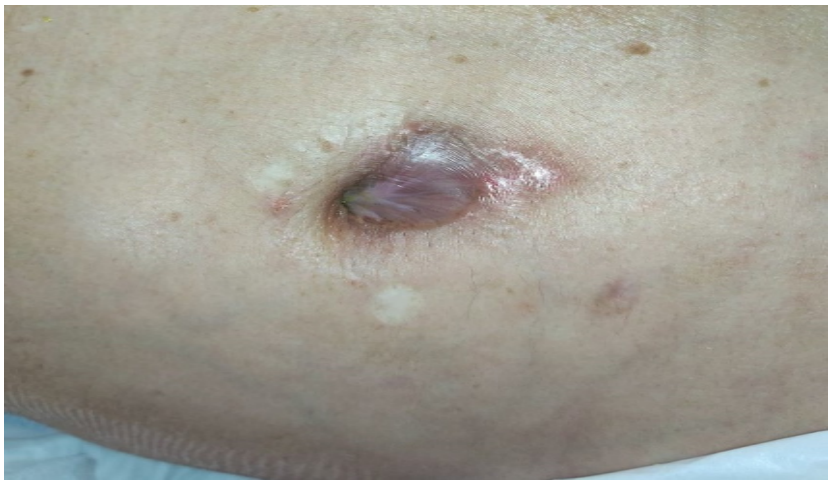

Figure 1. A. 2 cm diameter wound with continuity solution in the right subcostal region. Purulent and exudative appearance with a depth of 5 cm towards the liver. **B.** Anfractuous air-fluid collection measuring 70 x 44 x 33 mm in the area of tumor ablation (circle) with a fistulous tract to the skin surface (arrow). A continuity solution is observed in intercostal space between the 8th and 9th rib of approximately 2 cm. Known partial chronic extrahepatic portal thrombosis. **C.** 2 cm deep wound without suppuration and retracted edges in the right subcostal region.