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HEMOPERITONEUM DUE TO SPONTANEOUS RUPTURE OF HEPATOCELLULAR CARCINOMA IN A NON-CIRRHOTIC PATIENT: PERIOPERATIVE REPORT

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Abstract: Spontaneous rupture of hepatocellular carcinoma (HCC) is an uncommon and potentially fatal complication, most frequently described in cirrhotic livers. When it occurs in patients without known chronic liver disease, its diagnosis can be particularly challenging, given the low level of clinical suspicion. This is a 52-year-old male patient, a farmer from the interior of Ceará, who sought care with sudden, intense abdominal pain, accompanied by sweating and tachycardia. After initial hospitalization, he developed melena, a progressive drop in hemoglobin and the need for multiple transfusions. Upper digestive endoscopy did not identify an obvious source of bleeding, and abdominal CT scans showed a liver lesion in segment III, with characteristics suggestive of active bleeding. In the following 12 hours, there was a significant clinical deterioration with signs of hypovolemic shock, and exploratory laparotomy was indicated. During the operation, voluminous hemoperitoneum (approximately 2.5 liters) and a partially ruptured hepatic tumor lesion were found, located at the transition between segments II and III. Non-anatomical segmental hepatectomy was performed, with good post-operative progress. The histopathological study confirmed hepatocellular carcinoma in a non-cirrhotic liver. The patient was discharged from hospital in good clinical condition and continues to undergo satisfactory outpatient follow-up.
Key Words: Hemoperitoneum, hepatocellular carcinoma, spontaneous rupture, hepatectomy, non-cirrhotic liver.

INTRODUCTION

Studies indicate that the rate of spontaneous rupture of hepatocellular carcinoma (HCC) is between 4.8% and 12%, and is more frequent in patients with cirrhotic livers (ZHU et al., 2002; BATTULA et al., 2009). This association with cirrhosis is well documented in

the literature, which reinforces the atypical nature of cases occurring in non-cirrhotic livers - a condition considered rare and difficult to recognize clinically (YEH et al., 2003; TANAKA et al., 1991).

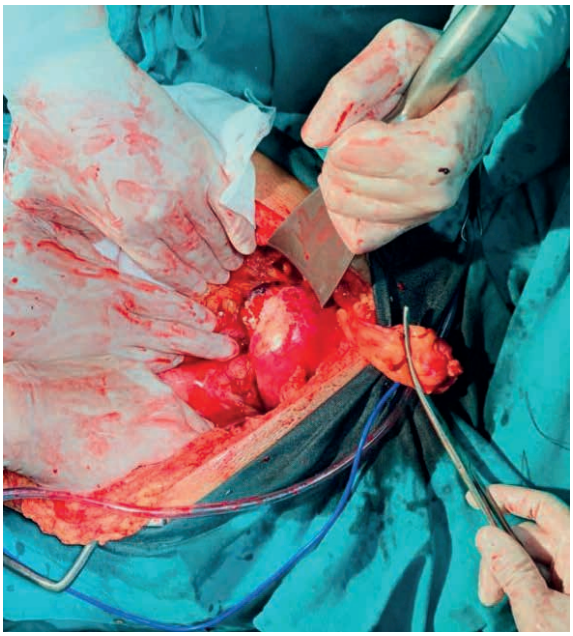
The clinical presentation is usually acute. Sudden, severe abdominal pain is usually the first symptom, which can be quickly followed by signs of peritoneal irritation and even progression to hypovolemic shock, depending on the extent of the bleeding. Most of the time, diagnostic confirmation depends on the correlation between clinical suspicion and imaging findings, especially computed tomography, which is considered the exam of choice in the acute phase (FORNER et al., 2018; ZHU et al., 2015).

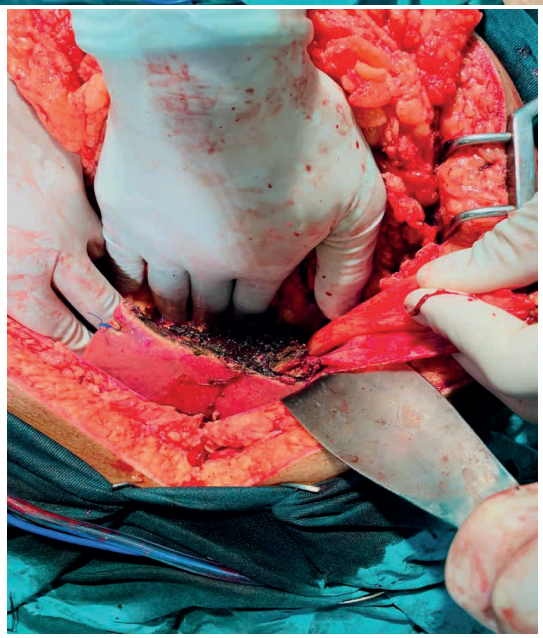
As for management, the initial focus should be on stabilizing the patient's hemodynamics. When there is active bleeding and persistent instability, the surgical approach becomes imperative, and is often the only measure capable of controlling bleeding and offering a therapeutic chance (YEH et al., 2003).

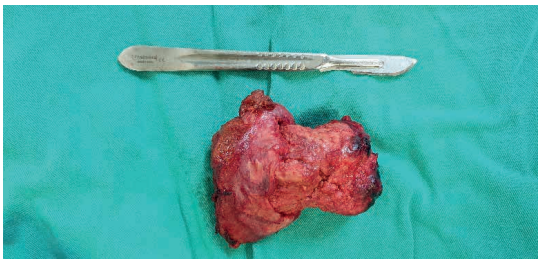
Given the scarcity of reports in the literature, especially in patients with no evidence of chronic liver disease, this paper aims to contribute to the discussion by presenting a clinical case of spontaneous rupture of HCC in a non-cirrhotic liver. The clinical, imaging, intraoperative and histopathological aspects will be explored, with the aim of expanding knowledge about this uncommon outcome and reinforcing the importance of early diagnosis and intervention.

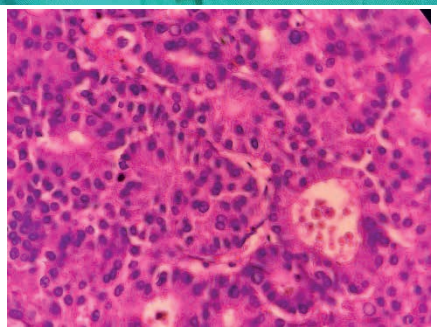
CASE REPORT

E.F.O, a 52-year-old farmer from Russas--CE, reported sudden onset of severe abdominal pain on the evening of 15/07/2019. The pain intensified, prompting him to seek medical attention that evening. He was tachycardic, diaphoretic and analgesia, even with opioids, was ineffective. There were no signs of hemodynamic instability. He was hospitalized for two days in Russas, where there was ematemesis and melena. With these symptoms, the patient began to show significant drops in hemoglobin levels and required blood transfusions; he was then referred to Fortaleza for upper digestive endoscopy and further investigation. At endoscopy, no lesions were seen on the esophageal mucosa, nor varices, but 2 infracentimeter polyps were noted in the distal gastric body with no signs of recent bleeding. After these inconclusive findings, the patient underwent an abdominal CT scan which showed a hepatic mass in follow-up III with doubtful signs of bleeding and a small peri-splenic fluid collection. The patient remained hemodynamically stable for 12 hours, until there was rapid clinical deterioration and signs of hypovolemic shock. Emergency laparotomy was indicated, which revealed a hemoperitoneum of 2.5 liters of fluid blood, a steatotic liver, but with thin edges and no signs of cirrhosis; a solid lesion that was partially ruptured and actively bleeding at the transition between hepatic segments II and III, and a tumor-like lesion with partially extruded contents. An unregulated segmental hepatectomy was performed, including the tumor and a margin of liver parenchyma with no macroscopic lesion. After surgery, the patient progressed well and was discharged after 10 days of further clinical and laboratory investigation.









DISCUSSION

Hepatocellular carcinomas have a relatively low risk of rupture when compared to other hepatic parenchymal lesions and cases of rupture are described at between 4.8% and 12% in most series, which almost exclusively include patients with cirrhotic livers. There is not much material discussing rupture of these lesions in patients with non-cirrhotic livers and even other reports are rare. In our paper, we illustrate the surgical findings, tomographic images and histological findings of the excised specimen.

CONCLUSION

Considering the rarity of spontaneous rupture of these lesions, our paper aims to describe and discuss this atypical clinical case in a richly illustrated manner.

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