SPONTANEOUS RUPTURE OF HEPATOCELLULAR CARCINOMA MANAGED AT A DISTRICT HOSPITAL

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AIM: To highlight the possibility of hepatocellular cell carcinoma rupture in the course of acute abdomen and the benefit of single staged liver resection treatment of spontaneously ruptured hepatocellular cell carcinoma in a limited resources health facility.

INTRODUCTION

Hepatocellular carcinoma (HCC) is the worldwide health problem and the third leading cause of cancer-related death globally and its overall prognosis remains disappointing [1]. HCC rupture is one of the life-threatening complications of HCC, and therefore, the most efficient treatment modality should be selected and rapidly applied to patients with ruptured HCC.
The incidence of spontaneous HCC rupture had decreased due to the earlier detection of HCC. Nevertheless, its incidence has been reported to be high as 3%-15% and its in-hospital mortality rate to range from 25% to 75% in the acute phase [2]. Open surgery was the main method used to treat HCC rupture from the 1960s to the 1980s. [3] Recently, survival benefit by transarterial embolization (TAE) has been reported in centres with adequate facilities [4,5,6]. However no definite recommendation has been issued regarding optimal treatment of HCC rupture, and the comparative survival benefits of surgery and TAE remain unclear [1].

CASE DESCRIPTION

45 year-old man presented to of Ruhengeri district hospital complaining of severe abdominal pain that started in the epigastrium 6 hours before. He was known to have chronic epigastric pain. Physical exam was remarkable for restlessness, pallor, sweating, weak and fast peripheral pulses, oliguria, low blood pressure, moderately distended abdomen that was diffusely tender but most intense tenderness was remarked in the RUQ and epigastrium. He was resuscitated with crystalloid IV fluids and blood transfusion. After initial stabilization, he was taken to the operating room.
During explorative laparotomy, hemoperitoneum was found to come from the ruptured multinodular lesion in the left lobe of the liver, occupying the segment III and a half of segment II. The rest of the liver looked nodular with decreased size of the liver. Partial left liver lobe resection including the segment II and segment IIII was performed hepatic tumour using digitoclasia (Ton That Tung Procedure), haemostasis achieved with 4 full thickness U-shaped stitch points, diathermy, surgicel and omental patch. The patient had uneventful post-operative evolution and he was Discharged home on POD 7. The specimen was sent to King Faisal hospital and the histopathologist confirmed the Diagnosis of moderately differentiated infiltrative HCC. One month after the patient was transferred to King Faisal Hospital where he was found to have chronic hepatitis B and he had tumour seeding to the midline laparotomy scar. The resection of tumour seeding and the adjuvant chemotherapy was initiated (Sorafenib 400mg q 12hrs). He is still receiving chemotherapy and follow up CT-Scan shows no remaining disease. He is doing well and he went back to his job and he is fully functional.

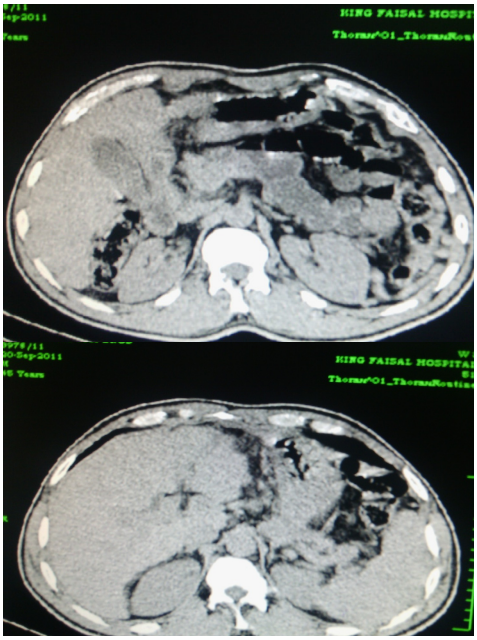

Figure 1: Thoraco-abdominal CT-Scan of our patient one month after liver lobe tumour resection

DISCUSSION

To date, there has been a dearth of reliable clinical evidence on the merits of surgical treatment versus those of TAE, in the context of survival benefit in patients with a spontaneous HCC rupture. In a recently reported retrospective comparison of survival rate, Young-Joo Jin et al found that the cumulative overall survival rate tended to be higher in the surgical treatment group. Liver resection

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provides the only hope of cure for patient with ruptured HCC. Emergency liver resection has been advocated to achieve both hemostasis and to provide a definitive treatment in a single operation [7, 8]. Currently, most authors advocate staged liver resection as the preferred definitive treatment after the patients have recovered from the rupture episode [9, 10] because it has a much lower in-hospital mortality rate (0%-9%) and a better survival rate (1-year survival rate, 54.2%-100%; 3-year survival rate, 21.2%-48%; 5-year survival rate, 15%-21.2%). And One-stage emergency liver resection should be reserved for patients with a small and easily accessible tumor and a noncirrhotic liver [3]. Our patient had a single borderline-sized and easily accessible lesion and he underwent one-stage emergency liver resection with good outcome.

CONCLUSION

This case illustrates the potential benefit of one staged liver resection as treatment of spontaneously ruptured HCC, which may be the single available option in some limited resources health facilities.

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