A curious case of liver tumour rupture : diagnostic enigma and surgical challenge



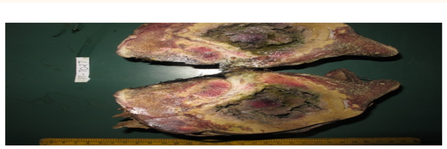
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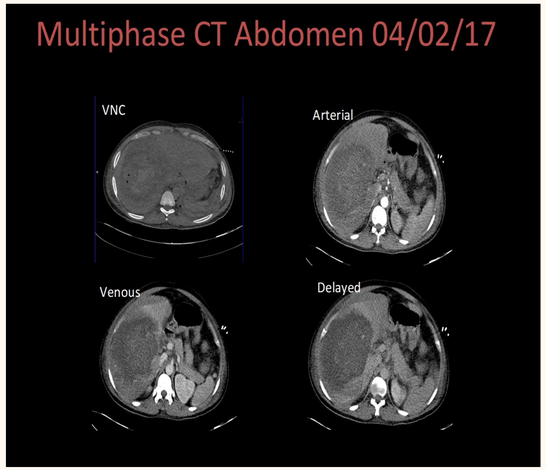
Introduction

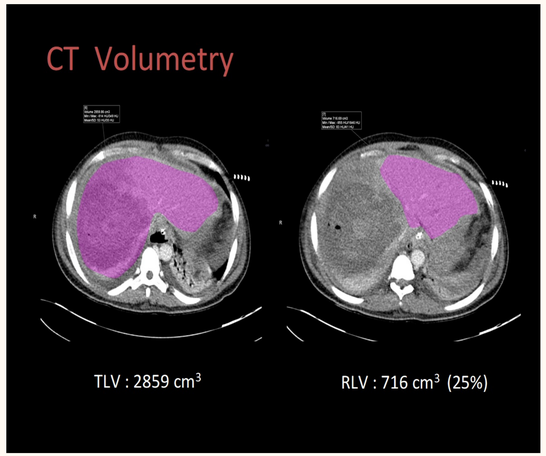
- Spontaneous rupture of liver tumour is rare and associated with dismal prognosis.
- Emergency liver resection is often difficult and tolerated poorly.
- We hereby, report the management of a patient who presented with haemorrhagic shock and severe sepsis due to spontaneous rupture of liver tumour.

Case Summary

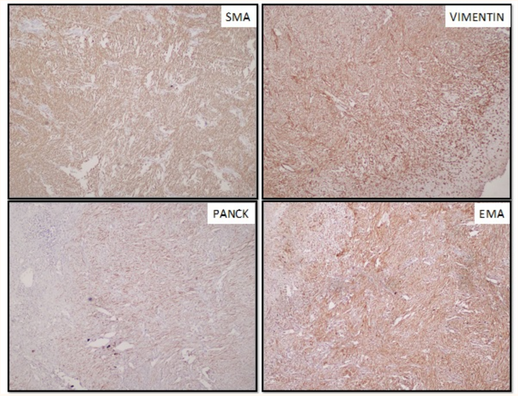
- A 36-year-old man presented to the emergency with abdominal pain and shock. He was resuscitated with blood transfusion, broad-spectrum antibiotics and mechanical ventilation. He developed severe sepsis with acute kidney injury. Computed tomography (CT) of abdomen showed a large right lobe liver tumour with rupture and hemo-peritoneum without any metastases. TAE(Transarterial embolisation) could not be done due to acute kidney injury. He was taken up for damage control laparotomy after initial stabilization. Intra-operatively after evacuation of necrotic debris and lavage, the replaced right hepatic artery arising from superior mesenteric artery was ligated to prevent further bleeding.
- He improved postoperatively and follow-up CT scan showed the adequate remnant left lobe. After further optimization and recovery of renal function, he underwent definitive right hepatectomy on the 7th postoperative day. and later he had an uneventful course. Histopathology revealed hepatic carcinosarcoma (HCS). At 2-year follow up he is asymptomatic and doing well.







HCS Immuno-histochemical analysis



Discussion

- Hepatic carcinosarcoma (HCS) is very rare tumour worldwide as only a few cases (only 56 cases) have been reported sporadically till date[1]
- Literature is very scarce in ruptured HCS, but treatment has been extrapolated from the management of ruptured HCC
- Emergency hepatectomy is the last option to save the patient in case of ruptured liver tumours when TAE have failed which has a sucess rate of 68-100%. It carries a very high mortality of 11% and morbidity of 50%. [2]
- Whereas the staged management of liver tumour rupture includes initial damage control surgery that consists of perihepatic packing, hepatic artery ligation and debridement of necrotic tissue followed by standard hepatectomy after few days.
- Emergency hepatectomy has 72 %, 41 %, and 11 % 1y, 3y and 5y survival advantage whereas staged hepatectomy has 82%, 44% and 27% 1y, 3y and 5y survival advantage in ruptured HCC [3]
- After elective surgery of HCS the 1y and 3 y survival rates is 45 % and 20 % respectively[4]
- t's a known fact that ruptured liver tumours have a much more dismal prognosis, which is similar to ruptured HCS also.
- Our ruptured HCS patient underwent staged procedure in the form of initial damage control surgery and later definitive right hepatectomy after 7 days of first surgery.
- Only single case study by Yamamoto et al has published a long-term recurrence free survival of 30 months after elective HCS surgery.
- Our case is the only longest recurrence free survival shown in a case of ruptured HCS.

Conclusion

Ruptured liver tumors are rare presenting as surgical emergency. In most patients staged approach i.e. TAE followed by definitive hepatectomy is helpful for successful management. In the absence of TAE staged hepatectomy also gives good results.
HCS is a rare histopathological diagnosis. Management of HCS is similar to HCC where surgery has the best survival advantage, although overall prognosis dismal.

Reference

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