Anterior approach for right hepatectomy and right anterior sectionectomy with hanging maneuver for large hepatocellular carcinoma: A single-center experience in Vietnam (with video)

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INTRODUCTION:
Right hepatectomy and right anterior sectionectomy for large hepatocellular carcinoma via the anterior approach without prior liver mobilization is an accepted technique and the liver hanging maneuver facilitates this procedure. Hepatic parenchymal transection remains a critical part of this operation during which excessive blood loss can occur. Control of blood loss is important in hepatectomy as excessive bleeding and blood transfusion are associated with increased postoperative morbidity/ mortality rates and compromised long term oncological outcomes in these patients.

OBJECTIVE:
To report the surgical and preliminary outcomes of major right hepatectomy and right anterior sectionectomy for large hepatocellular carcinoma (HCC) using the anterior approach with hanging maneuver in single center in Vietnam.

METHODS:
In patients who had large HCC (over 10 cm in size) at the right lobe of liver and underwent hepatic resection such as right hepatectomy or right anterior sectionectomy, the technique of anterior approach with the liver hanging maneuver was used. All consecutive patients who underwent elective right hepatectomy or right anterior sectionectomy in our center using this technique from March 2014 to July 2016 were retrospectively studied. This study aimed to describe this technique and report the preliminary outcomes.

RESULTS:
Twenty one patients with hepatitis B-related hepatocellular carcinoma (HCC) with cirrhosis underwent the technique for right hepatectomy and right anterior sectionectomy using the anterior approach with the liver hanging maneuver. The mean blood loss, liver parenchymal transection time and operation time were 280.3 ± 72.6 ml (SD), 49.3 ± 8.1 min, and 291.7 ± 58.2 min, respectively. No patients developed postoperative bleeding or bile leak. There was no 90-day mortality.

CONCLUSION:
To achieve complete anatomic hepatectomy in a large hepatocellular carcinoma (HCC), hepatic transection through an anterior approach is required. Liver hanging maneuver is a useful procedure for transection of an adequately cut plane in anatomical liver resection. It may reduce intraoperative bleeding and transection time, and it caused no major complications and mortality.