

Case Report

Laparoscopic liver resection as a treatment modality for hepatic secondaries in a patient with cervical carcinoma

K B Galketiya¹, V Pinto², V G K Chathuranga³, H Hemachandra², C Rajapaksha², D Rathnayake²

¹Department of Surgery, Faculty of Medicine, University of Peradeniya, Sri Lanka, ²Department of Anesthesiology, Faculty of Medicine, University of Peradeniya Sri Lanka, ³Teaching Hospital Peradeniya,

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Corresponding Author: K B Galketiya, E-mail<kbgekatiya@yahoo.com>

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Introduction

Surgical resection of liver secondaries following colorectal malignancy offers a 5-year survival rate of around 40%^{1,2}. Liver resection of cervical cancer metastases (FIGO IV) has also been reported^{3,4}. Laparoscopic surgical techniques are increasing in popularity due to reduced post-operative pain, hospital stay and respiratory compromise. It may have some immunological benefits in malignant diseases⁵. We present a patient who successfully underwent laparoscopic liver resection for hepatic metastasis from a treated grade II cervical carcinoma that.

Case report

Follow up ultra sound scan and CT-scan of a 34-year-old female who underwent Wertheim hysterectomy and pelvic lymphadenectomy six months back for stage II A squamous cell carcinoma of the cervix revealed a focal lesion in segment IV B of the liver. (Figure 1). A hepatoma was unlikely as her alpha-fetoprotein level was 1.23ng/ml (0-5ng/ml).



Figure 1: 1-CECT image

After induction of general anaesthesia and placement of an epidural catheter, the patient was placed in 20° reverse Trendelenburg position with 30° left tilt of the table. Four ports were used. The camera port 1cm above and 1cm to the right of the umbilicus, a 5mm port in the epigastrium to the left of the falciform ligament for liver retraction, a 5mm port over the right anterior axillary line at the level of the camera port, as the left hand working port and a 10mm right hand working port just medial to the left mid axillary line (Figure 2). The insufflation pressure used was 14 mmHg. The portal vessels were dissected to clamp if control of inflow was required. The falciform ligament was divided and dissection progressed until the inferior vena cava was exposed to allow control if required. The tumor with resection margins and the gall bladder were resected en-bloc. Ultrasonic dissector and bipolar diathermy were used to perform the resection. Clips were used to control larger vessels. A mini laparotomy was performed to retrieve the specimen. A drain was left in situ.

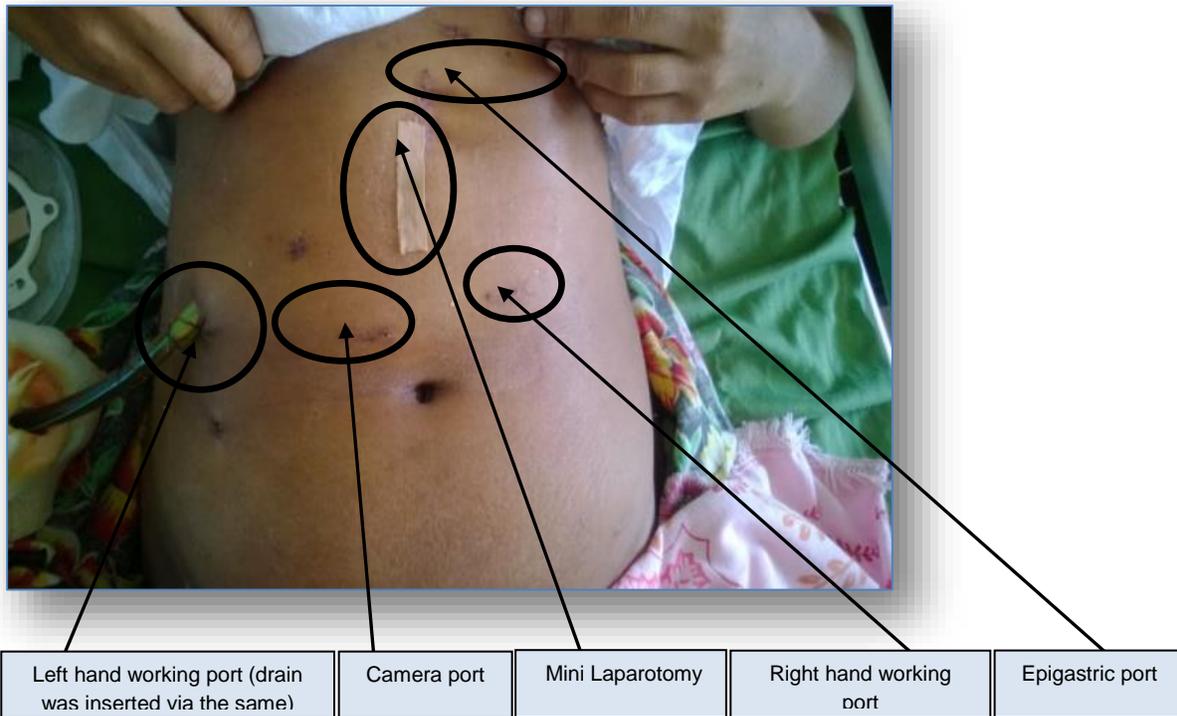


Figure 2: Demonstrates port sites and mini incision

Operating time was 210 minutes and the total blood loss was 1000ml. Haemodynamic and respiratory parameters were stable. Post-operative analgesia via the epidural catheter was continued for 24 hours. Patient was mobilised and fed orally after 24 hours and was discharged from hospital on the eighth postoperative day, once the drain tube was removed. Histopathology revealed a metastatic deposit from a poorly differentiated carcinoma with clear resection margins. The patient was referred to an Oncologist for follow up.

Discussion

This patient presented with a solitary liver secondary following surgical treatment for cervical cancer. Lesions on the edge of the liver are known to be approached easily for laparoscopic resection^{1,5}, as was experienced in this patient. The reverse Trendelenburg position and left lateral tilt was used to let viscera fall away from the field of dissection. These positions may have eased ventilation and minimized aorto - caval compression as well.

Control of bleeding is a known obstacle and blood loss could have been reduced by clamping the inflow. Even though gas embolism is a possible complication, it is surprisingly rare clinically⁶. Survival following liver resection for malignancy is directly related to clearance of the margins⁷. The clear display of anatomy by magnification and ability to zoom-in facilitated the dissection. Intra-operative ultra sound, if it had been available, would have allowed monitoring of resection by demonstrating the major vessels, synchronous lesions and adequacy of the resection margins. This is more important in laparoscopic resection than in open surgery, as in the former there is no tactile sensation. The reduction of incision size, minimum retraction, less exposure and handling of viscera reduced the post-operative morbidity and facilitated early feeding and mobilisation. However, the patient was kept in hospital until the drain was removed, due to the long distance she would have to travel to hospital from home in the event of any complications. The patient who was operated in mid May 2014 remained well at follow up in August 2014.

Conclusions

The patient under discussion underwent laparoscopic liver resection for a solitary metastasis following cervical carcinoma. Further follow-up is required to determine whether there is a survival advantage. Laparoscopic resection facilitated early feeding and mobilisation. However, as drainage was prolonged, early discharge from hospital was not possible.

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